

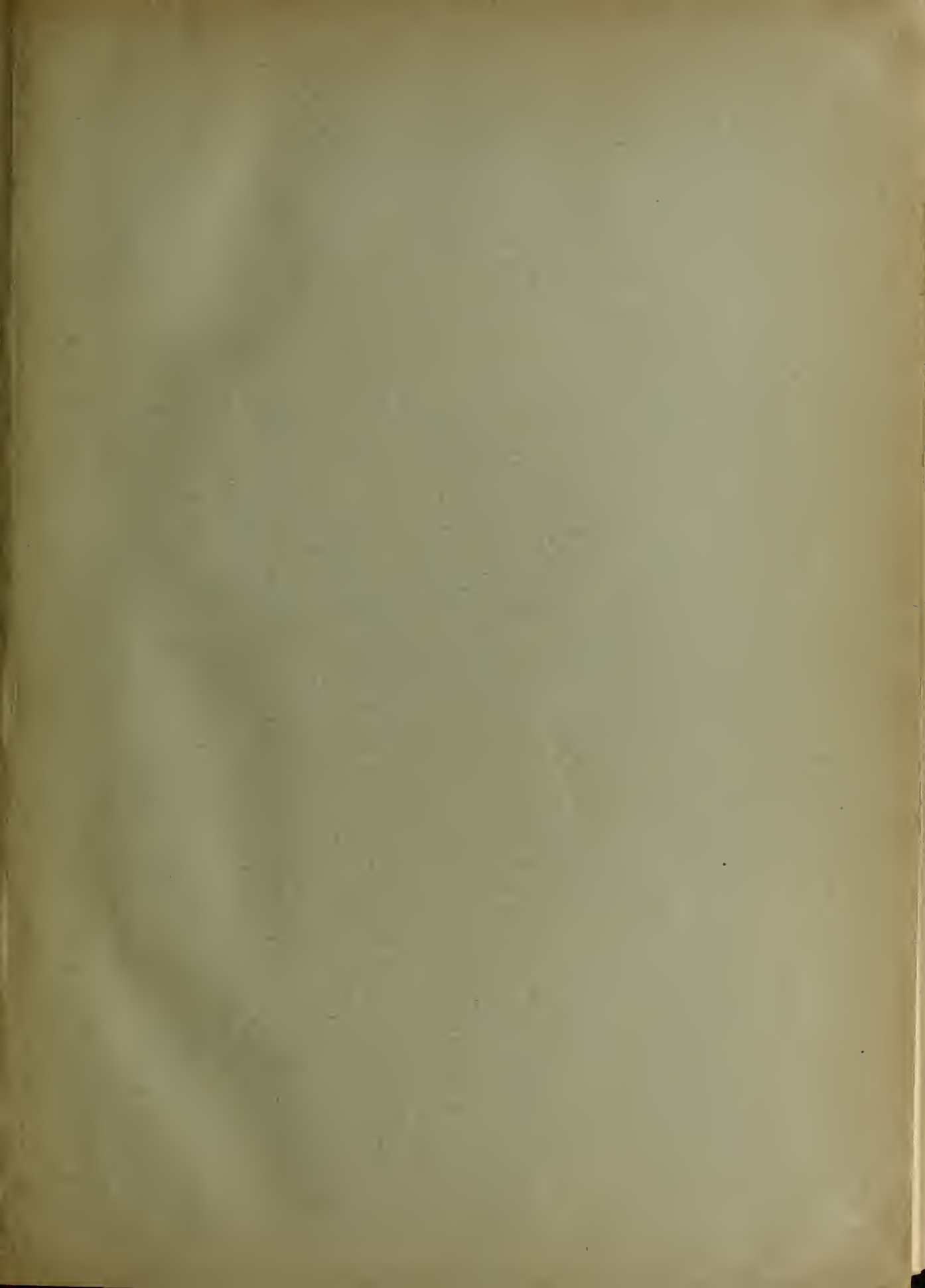
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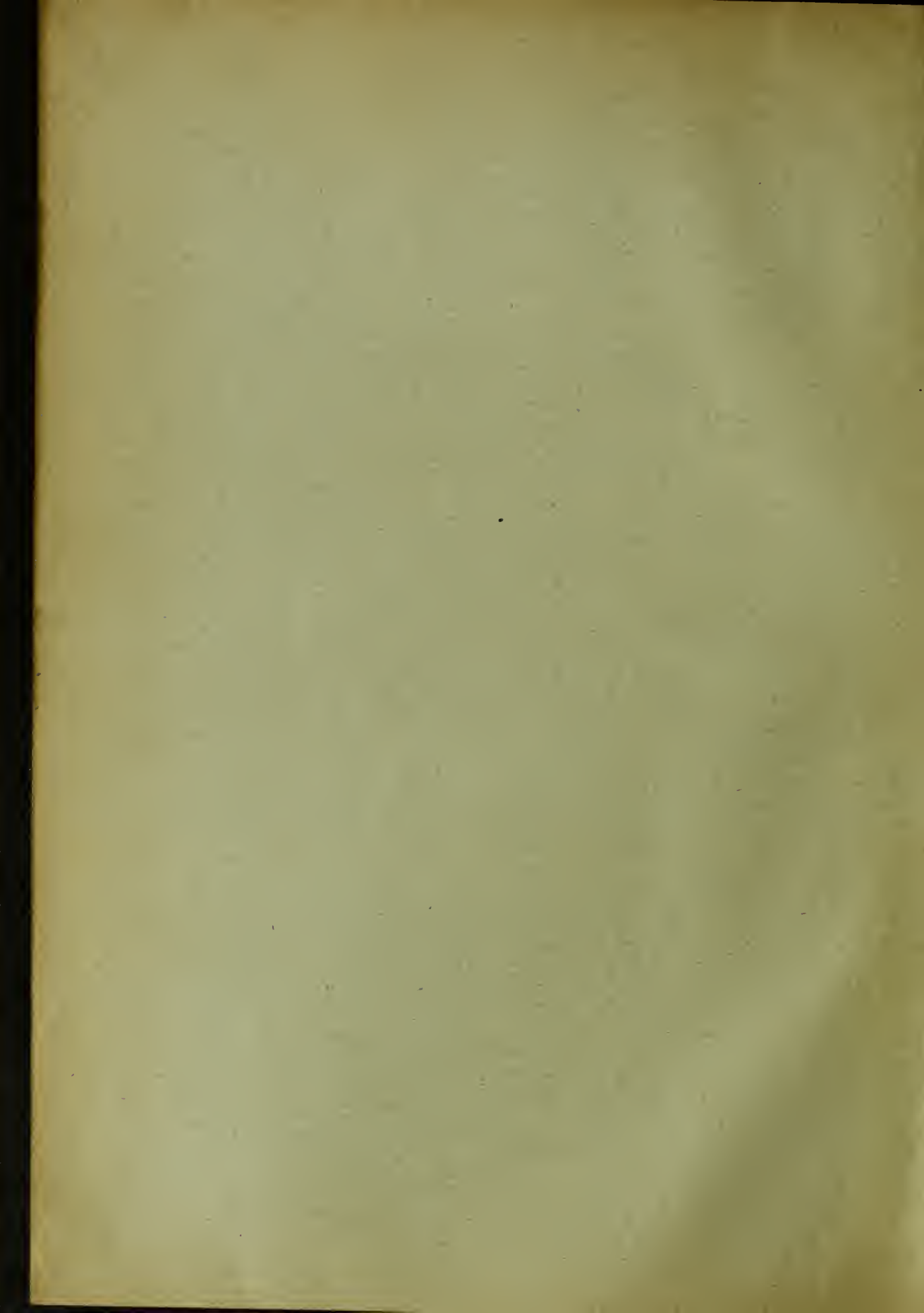


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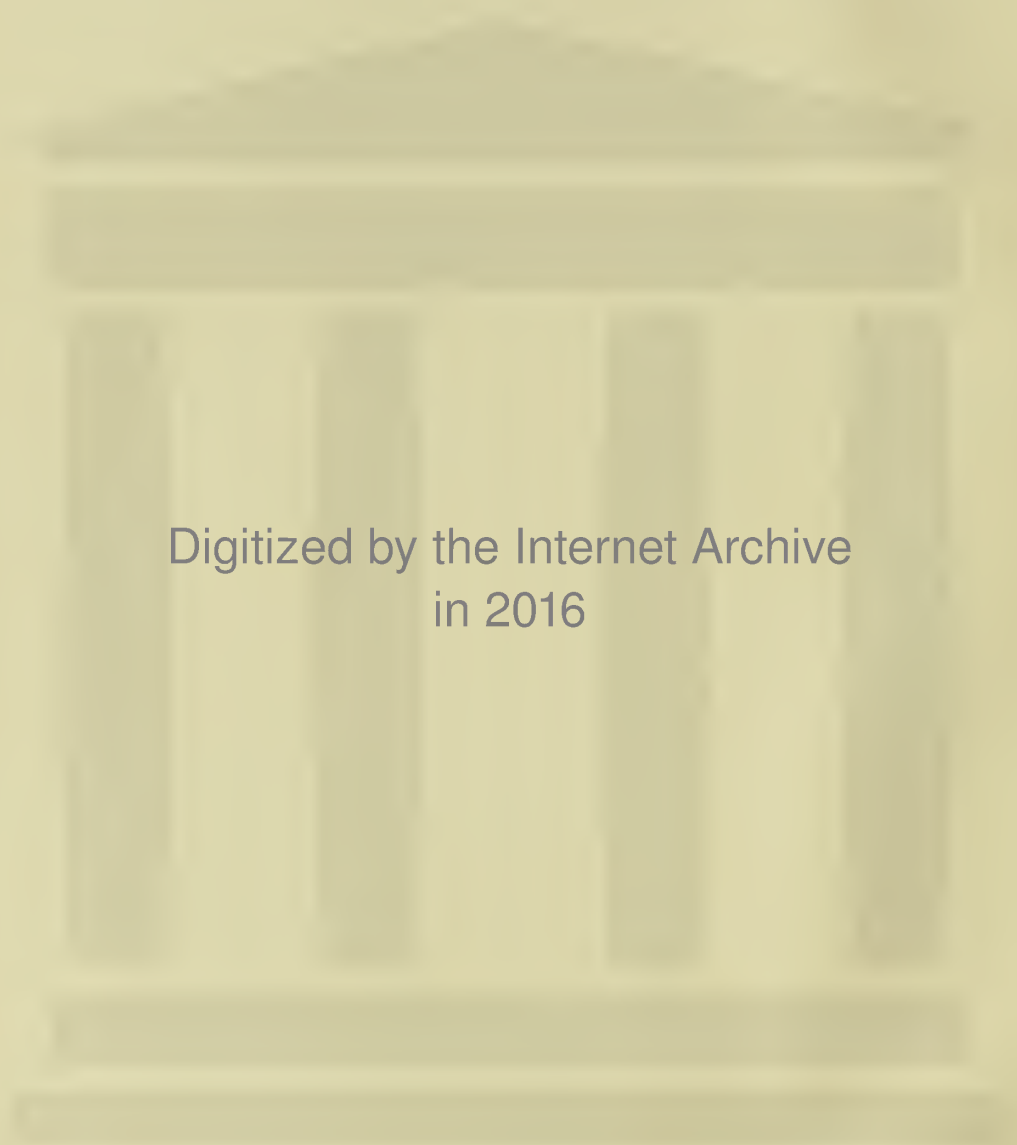












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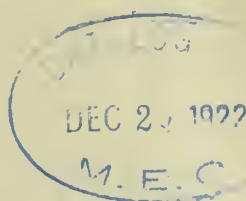
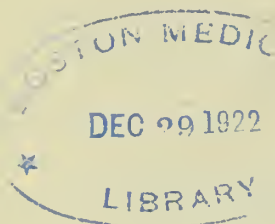
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EDITED BY  
WILLIAM E. McVEY, B.S., M.D.  
UNDER SUPERVISION OF THE COUNCIL

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VOLUME XXII  
JANUARY 1922 TO DECEMBER 1922 INCLUSIVE  
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1922



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# THE JOURNAL

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No. 1

### A New Technic for Leg Amputation

THOMAS G. ORR, M.D., Kansas City, Mo.

Department of Surgery, University of Kansas

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

An amputation should be done as carefully and with as much thought of future function as a herniorrhaphy or a gastro-enterostomy. Too little emphasis has been placed upon the importance of careful work in doing this operation. With this in mind I have attempted to perfect a technic that will eliminate as much as possible some of the common complications found in the ordinary amputation stumps, much as tender scars, ulcers and neuromata. Practically all artificial limb fitters agree that the most satisfactory site for leg amputation is in the middle third. This technic is chiefly for that type of operation, although it may be used higher or lower in the leg or even in the thigh.

Long anterior and short posterior flaps are made. The long flap is made in order that the scar may be placed in a posterior position to free it from attachment to the bone or from pressure by an artificial limb. In the use of an artificial limb the propelling force of the stump inside of the socket falls on the anterior surface over or near the tibial crest. If there is to be any end bearing the scar should not be placed on the end of the stump. The most important pressure point in end bearing is, of course, the end of the tibia. In making the anterior flap the deep fascia is included. This is dissected back at least 3 cm. beyond the point where the tibia is to be divided.

The posterior flap is quite short and is dissected free for a short distance only. From the edge of the posterior flap the skin and fat are dissected downward and a flap of fascia freed of sufficient length to turn up-

ward over the cut end of the stump. The muscles are then divided 2 or 3 cm. below the point at which the tibia is to be amputated. The cut muscles are retracted and the tibia and fibula sawed across. The fibula is cut at least 1 cm. shorter than the tibia. Either before or after the bones are severed the periosteum is carefully removed about the cut ends for a distance of  $\frac{1}{2}$  cm. and the marrow is scooped out. The tibial crest is then removed for 2 or 3 cm., so that there will be no sharp points or edges beneath the anterior flap. Sharp or rough edges, if there be any, are made smooth by rongeur or coarse file. The nerves are then carefully freed (there being five chief nerves in the leg), drawn out of the stump as far as possible, and injected with absolute alcohol as recommended by Lewis and Huber. The nerve is then divided just below the injected point. This prevents the formation of neuromata to a greater extent than any of the other usual methods or nerve end treatment. All bleeding vessels are then carefully ligated. The entire mass of muscles is ground together with one strong purse-string chromic suture, which suture crosses over the anterior beveled portion of the tibia. Additional sutures may be placed when necessary to properly fix the muscles together.

If the mass of muscle appears too bulky and is likely to produce a bulbous stump, small portions of it may be excised. The muscles should have been left long enough so that when the purse string is drawn, the cut end of the bone will be slightly shorter than the muscle. Muscle flaps are not made. The already formed posterior facial flap (which may have with it some of the thinned out portion of the calf muscle tendons) is turned forward and sutured over the end of the entire stump. Sutures are placed through this

flap which reach well into the muscle beneath. This aids in obliterating dead space and giving the muscle a new insertion. The anterior flap is then turned down and the fascia sutured in a few places. This gives two layers of fascia over the end of the bone. The skin is then very carefully closed, shaping the flaps to fit. A small rubber tube drain is placed beneath the flaps. This is brought out near one end of the wound between stitches. Such drains should always be placed between sutures because healing is more prompt when the drain is withdrawn than if it enters at the end of the wound. A snug dressing is applied for the first twenty-four hours to minimize the oozing beneath the flaps. In the absence of infection some clot beneath the flap is not a disadvantage. It becomes organized and aids in the formation of a fibrous pad over the end of the bone.

After a time a bursa forms over the bone end which aids in the freedom of skin movement. The skin scar is placed so that it will not become adherent to the bone or receive pressure, thus reducing the likelihood of tenderness and ulceration. Muscle flaps are not made, nor is the muscle permitted to extend beyond the end of the bone more than 1 cm. because excess muscle produces an unstable stump end which is likely to become chafed or tender. If any pressure is exerted on muscle covering bone it promptly atrophies and is replaced by fibrous tissue. Muscle is not a normal covering for bone at points where there is weight bearing. On the other hand if the muscle is not fixed at the end of the bone it will retract, leaving bone protruding beneath the skin which is more likely to become injured or tender than the well rounded stump end. The above technic fixes the muscle around the end of the tibia with a purse string and gives it an insertion both at the end of the bone and into the fascia which is sutured over it.

#### CONCLUSION

The advantages of this technic are (1) a firm rounded stump with skin freely movable over the bone; (2) a scar properly placed so it will not become adherent to bone or receive pressure; (3) no tenderness due to neuromata,

chafing or ulceration; (4) the muscles have a new insertion at the end of the stump which prevents their retraction and exposure of the bone beneath the skin.

—R—

### How to Make the County Medical Society Attractive and Helpful

ELMER E. LIGGETT, M.D., Oswego

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The last election of our County Society came on a stormy night, and was held twenty miles from where I live. The few men in attendance took advantage of our absence and wished the Presidency onto me, and the Secretaryship onto my co-laborer, Dr. Townsend. As soon as we were notified of this election we began to lay plans as to how to make the Society helpful and attractive, hoping that we might give it a good year. With this end in view I wrote for suggestions to a few parties, whose experience I counted valuable. One of these was Dr. Hassig, and his knowledge of my labors in this direction is no doubt the reason for his special request that I write this paper. It is presented not because I am an authority on the subject, nor because of anything that I know, or much that I have learned, but because it is hoped discussion of the subject may bring out such suggestions as will enable us to make our own Society more helpful to its members.

It may be conceded that a medical society is a necessity in any community containing more than two doctors. The very fact that wherever there are more than two or three doctors within accessible distance of each other, they band themselves together into a society, is evidence of a need for it. Also the fact that the majority of the doctors in a community are members of the society indicates its usefulness, and their desire to appropriate its benefits. Further the fact that under the most adverse circumstances, where the society is most neglected, mal-treated, and mis-managed, it is tenacious of life, and invariably has a final rejuvenation, indicates that, like the church, it cannot be dispensed with in a civilized community.

Probably the most important reason for this universal prevalence, popularity, and vitality



is that a going, successful society furnishes a medical atmosphere for doctors, who would otherwise be isolated from their kind. And that this medical atmosphere is a wonderful stimulus to further progress in the medical education and growth, of those who attend the meetings, is a well established fact.

Again these societies are of value to the communities in which they are, because membership in, and attendance on them, makes better doctors, and these doctors are better able to give scientific and successful service to the patrons whom they serve. Also these doctors learn to measure one another's capacities, and abilities, and fitness along special lines of work, so that when one of them gets a puzzling case, or one in which he needs help, his knowledge of his confrere's qualifications enables him to select, as councillor, the one who can best help him in the case in hand. All of which is for the good of the patient, and therefore for the good of the entire community. And further, the study of preventive medicine, the problems of sanitation, and the subjects discussed in the open meetings in which the laity participate, are all calculated to be beneficial to the community health, and these advantages should be appreciated by the general public.

But unless the members find, when they attend the society meetings, that they are helped professionally, mentally, socially, and perhaps financially, they lose interest and losing interest fail to attend further, so that the purpose of the society is nullified.

Now to make a society that fulfills its purpose and is therefore attractive and helpful one must recognize several problems. These problems cannot be successfully solved without a good deal of work, and for the society to succeed it must select a live man for its president, and one especially alive for its secretary. They must be individuals who are whole heartedly enthusiastic in their willingness to work, and to work together and to work for the good of the society. They must be willing to face disappointment again and again, with a smile, and to try and try again.

In the study of these problems we find several factors. Some of these factors are: accessibility of the place of meeting, and the

time of meeting. Another is the advertisement. This should be quite extensive. Personally, I believe that follow up letters to the doctors, and published notices in the newspapers showing what we are going to have, what good the doctors may expect to get, and how the community may be benefitted by the meeting, are all in order.

Another problem in the success of the society is how to overcome previous bad feeling among members, their prejudices against one another, how to keep down dissensions among friends, but especially, how to cultivate regard and good feeling, and build up character in the individual member.

Another one of the problems of making the society attractive, and helpful is to consider the members themselves. What kind of men are they? What do they want? What inducements to offer on the program? What will interest them? If you get up a program that noly interests the surgeons, and there is only one surgeon in the community you need not expect a very enthusiastic meeting. Likewise if you get up a program of interest only to the oculist, and there is only one oculist in the society you may have an excellent program, but with little desirable result.

The program, of course, is the important part of the meeting, and must contain the strongest inducement for attendance. It may be given by local talent entirely, or by imported talent entirely, or by imported and local talent combined or alternating. Or it may consist of clinics, or of a general discussion of medical problems of wide interest. But whatever form the program takes the meeting must emanate a medical atmosphere of such a nature as to satisfy the hearers, and those who participate in the meeting, and if possible, leave them hungry for more.

A program given altogether by local talent does not usually seem to be quite satisfactory. Nearly always there are those of us who feel we want to hear the man from abroad. Sometimes we are brought into such close contact with our neighbor that we are not able to appreciate his abilities, and for this reason imported talent is usually more successful in interesting a society. But it has the defect that the members feel they themselves have

nothing to do, and so do not do as much as they should. In other words they do not get as much out of the meeting as they would if they had some personal share in its program. You have all heard the story of the old man who told his wife what a good prayer meeting they had, because he was one of those who lead the prayer.

My experience with clinics shown at county societies has been varied, but in the great majority of instances it has not been satisfactory. General discussion that has not some specific purpose or plan scatters so widely that the meeting usually degenerates into a talk fest and gets nowhere and unless it should be a part of the open meeting program I do not think it accomplishes much.

Different problems will present themselves to each individual society and must be solved as the occasion arises, but under any conditions the meeting must be of such a nature that, as nearly as possible, all those who attend will be interested, enlightened, encouraged, enthused helped and educated.

For the use of our society we devised, adopted, and purpose to continue the plan of having some physician who is an authority come and lecture to us on some rather new subject of general interest to the entire profession, or cover the new things of an old subject. We ask this man to bring down to date all the new things, but to be very careful to sift out and eliminate the visionary, the unproven, the chimerical advances, which are being announced so frequently. He is expected to talk to us as though he were lecturing a post graduate school, but we retain the privilege, and sometimes exercise it, of discussing his lecture as though it were an ordinary paper. We may criticize it, controvert it, if we can, or ask him any questions we choose pertinent to the subject. And after all this is done, if it seems advisable, we ask him for a short resume', or review of the points not yet quite clear or well understood.

It can be seen readily that the men who give these lectures must be high grade, up to date men, with ability to teach. Fortunately we have been able to make an arrangement with the Faculty of our State Medical School at Rosedale, whereby we have had, and feel

we are going to be able to have, the very best help obtainable for our series of lectures. We greatly appreciate the assistance the School has given us in this way, and we feel sure if any other county society will adopt the same plan, they may get the same assistance.

We feel this arrangement is of mutual benefit since it brings the School and the profession into intimate association, and engenders more interest from the profession in the School and a better feeling toward it. Before we finish our course it is quite possible we shall want to go outside the Faculty for further lectures. If we do we aim, as far as possible, to obtain them from the profession of our state, so that some of you may be drafted into our service before the year is out.

After the lecture we transact the business of our local society. We give our local men full opportunity to present papers or clinics. The subject for the following lecture is announced so that all who desire to do so may study that subject, and be prepared for it. Then we ask suggestions from the society, and our visitors, as to what subjects shall be discussed at the next meeting, the second from the present one. If two or more subjects are suggested we ballot on which one shall be given, so that the members and visitors elect that subject which pleases them best, and about which they feel the most need of information.

We are planning now to begin the meeting with a five-minute quiz on the former lecture or if the members do not wish this quiz, we are thinking of having one of them give a five-minute resume' or review of the former lecture. We purpose to elect this individual two meetings in advance, so that he will be sure to be at the meeting when the lecture is given of which he is to give a resume', or critique, as he chooses. We hope by this critique, and the opportunity for our local men to present their papers and clinics, to hold our local interest and make the members feel that they can stand alone when it becomes necessary to do so.

As a matter of further benefit to our society and the members of the profession in general, we have invited the neighboring counties as our guests to attend these post



graduate lectures. The result of our efforts so far has been very encouraging. Our general interest has been marked, our attendance large. We have had visitors from each of the adjoining counties, men driving forty miles is not unusual. We even have visitors from Joplin, Jasper County, Missouri, for every meeting, and men from Carthage have written us that they want to come.

The subjects we have had presented have been discussed very clearly. They have been of much benefit to the attending members and visitors. I am quite sure that it has already made an impression favorable to our State School. And I am sure the men who have heard these lectures have been able to give better service to their patrons, and so be of larger value to their communities.

We hope to keep up the local interest of our society. We hope to keep up the interest of our guests and have them continue to visit us. We hope to develop new strength among ourselves and to get all our members to attend the society.

Further, we are planning a newspaper campaign. Whether we can make it succeed or not we do not know. We want to show the public what we are presenting for the doctors' improvement, and if their family physician attends the meetings how he can render better service to them. We want them to know we are having a series of these lectures and, as far as possible, we want each one of them to ask their doctor if he is attending them and if not, why not. In other words we want the general public to know that we are trying to help them and if their individual doctor does not get a profit which ultimately benefits his patrons it is his fault, for which they should hold him accountable. If we can arouse this public opinion we think no doctor can afford to stay away from the meetings. He must lay aside any animosity, and must overcome his inertia and attend the meeting or be classed as a "has been" and so go on the retired list.

—R—

Imagination, one of the greatest attributes of the mind, "cannot transcend the bounds of knowledge."

## **Importance of Good Office Equipment and Hospital Facilities for the Practice of Specialties**

GEO. P. MCCOY, M.D., Neodesha

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

To be chosen to represent my society in this assembly of physicians, representing the best element of the medical profession in the State of Kansas, is a trust and honor which causes mingled feelings of humility and pride. However unworthy I may be, I can not fail to feel proud of the honor.

The subject of my paper "The Importance of Good Office Equipment and Hospital Facilities for the Practice of Specialties" will not be closely adhered to for it is not only in the practice of specialties that good equipment is necessary but in the whole field of medicine.

One of the most important things to consider in the practice of a specialty is suitable office rooms and equipment. The physician's office, especially one practicing a specialty, is of as great and even greater importance than the workshop of other vocations in life and not only enables the physician to do more effective work in combating diseases, but is at the same time very beneficial in a professional and financial way.

The impression made upon the minds of patients, who visit a well-ordered office supplied with the modern diagnostic and therapeutic appliances, and see them in operation is the physician's best ethical advertisement. It shows that he is abreast of the times and adds materially to his professional standing.

Until recent years many physicians have been accustomed to a few surgical instruments, a few books and a medicine case or hand bag constituting their equipment for practicing their profession.

The factors of social position, family connection and even personal friendship have ceased to influence the laity in choosing their physician. Today a doctor is employed because he is believed to be the most efficient man available.

Sobriety, industry, honesty and clean living are necessary, but the public no longer recognizes experience by age, virtue by matrimony

or morality by affiliation with the church; and the first and last prerequisite for success is professional ability and thorough equipment. Such being the situation with which he has to deal, the modern medical man early chooses a special line of work, and devotes every effort and utilizes every opportunity to perfect himself and impress the community with his proficiency.

The modern doctor has discarded the silk hat and frock coat of his predecessor and put on the sack suit of the business man. In a sense he has become commercial. His office is not only provided with instruments of diagnostic precision, but also with modern methods of keeping accounts and collecting fees.

The progressive physician of today considers his equipment his greatest asset and success depends upon his skill in using it. Of course he must have executive qualifications and pleasant personality. The old adage "fine feathers make fine birds" is perhaps appropriate in this connection.

Just as the physician's personality is important so also is the environment of his office. While some offices are attractive others are repellant. There is nothing more discouraging to the patient who is in ill health, naturally nervous and restless, than to be required to wait in a bare, dismal, cheerless room, destitute of pictures, with a few old magazines with the covers torn off and not even a comfortable chair to sit in.

The reception room should receive first attention and should be made comfortable and inviting. The walls should be decorated with appropriate pictures which appeal to the imagination and sense of beauty. The chairs and seats should be of the most comfortable obtainable, and an open fire adds greatly to the cheerfulness. The table should contain the latest and the best papers and magazines. Such evidences of good taste have much to do with reinforcing the physician's personal qualities and professional skill.

The office attendant should be one whose cheerfulness predominates, always remembering the value of a smile:

"The thing that goes the farthest towards making life worth while

That costs the least and does the most is just a pleasant smile.

The smile that bubbles from the heart that loves it's fellow men

Will drive away the clouds of gloom and let the sunshine in.

'Tis full of worth and goodness too, with genial kindness blent,

'Tis worth a million dollars and it doesn't cost a cent."

The complexity of disease is such that the subject of diagnosis requires a breadth of intellect and a wealth of observation and analysis, which are ordinarily beyond the possibilities of the individual, hence the importance of a well selected library and instruments and equipment necessary for effectively utilizing the knowledge gained by organized efforts of research and investigation which have advanced our scientific enlightenment to its present high standard.

For a time our knowledge of etiology and pathology was vague and indefinite, but one after another great discoveries have cleared the field and given us definite facts upon which to work.

One of the most wonderful gains made in modern medicine is in the exact diagnosis of disease by laboratory methods. Diatheses and dyscrasias, miasmatic and idiopathic diseases are no longer mentioned. The terms scrofula, blood poison and typho-malarial fever are no longer used. Even the identity of neurasthenia and auto-intoxication are questioned.

Our medical schools have continued to raise their standards until it is now necessary for one who graduates from a medical college and secures a license to practice, to be capable of using all the aids to diagnosis which have come into use in recent years and to which, to such a large extent, medical science owes its wonderful strides in advance of most other sciences. I say that when a man graduates from one of our schools today he is capable of putting all of this wonderful knowledge to practical use, but in order to do so he must supply himself with the necessary equipment to reap the benefit of all the years of scien-



tific effort which he has undergone in order to begin his life's work.

This is the most critical period of a physician's career and in my mind is of such vast importance that the future success or failure of many men depends upon the question of equipment to go ahead and put his knowledge to practical use.

In the equipment of the office the chief point to be considered is facility in treating patients. The treatment and consultation rooms should be equipped for work rather than entertainment. Everything for facility and thoroughness, nothing for show. Bluff is a confession of unfitness, thorough knowledge and frank statements will inspire confidence and give impression of mastery as no amount of bluffing will do.

The essential furnishing of consultation and treatment rooms will not be given here as such is equipped according to the requirements of the individual specialist.

The hospital is now accepted as the safest, most comfortable and most economical place for the seriously sick. Practically every town of five thousand has a hospital and every well regulated hospital is an asset to the community. But the value of the hospital is in direct proportion to the thoroughness of its equipment, and in the hospitals today there is a general tendency to neglect to install the equipment necessary for applying treatments along special lines. On account of this lack of equipment in hospitals in smaller towns, a specialist is unable to properly care for many of his cases and is compelled to send them to the cities where the hospitals have installed the proper equipment for giving modern therapeutic treatments.

Thus it can readily be seen what a great benefit a properly equipped hospital, especially one in a small town, would mean to the community and also how much the work along special lines would be facilitated by good equipment in such institutions.

To those of you coming from the larger towns where you have access to all up-to-date and modern aids to your work, this paper will be of little interest; but to those of us in the smaller towns, isolated from those essential

helps, the question of equipment is a matter of vital importance.

—R—

### Cooperative Collections and Protection Against Deadbeats

W. E. McVey, M.D.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

To those who fail to perceive and those who perceive, but regret, the tendency to commercialize the practice of medicine, one may point out a few of the conditions which assure the inevitability of its consummation. Some of the modern conveniences have made life more worth living but have greatly modified the sentimental relations between physicians and their patients.

The telephone has saved the physician many needless calls and has enabled him to render better service by keeping in closer touch with his patients and has added only a comparatively small item to his expense account. It has also encouraged the people to learn how to observe and interpret many of the symptoms formerly not understood and has thus cleared away some of the mysteries of medicine. So that in place of an attitude of respectful awe that formerly prevailed, we now meet one of critical observation.

The automobile and better roads have greatly reduced the time consumption and have added considerably to the volume of business the general practitioner is able to do, but they have also brought the people closer together, lessened the distance to larger towns and cities and familiarized the people with the merits of other doctors than their family physicians.

Larger, better and more numerous hospitals afford better care and better facilities for diagnosis and treatment and the people themselves have learned to appreciate and demand these accommodations.

While specialization has added greatly to the efficiency of medicine it is also largely responsible for the elimination of the family physician and the sentiment which surrounded him. People seek the specialist themselves not waiting to be referred by the family physician.

The public health service, the county and

municipal health boards, and the various civic and industrial health organizations, have relieved the physician of much of his responsibility and deprived him of a considerable amount of lucrative business, but they also, or should also, have relieved him of most of the demand for gratuitous service.

It is important that every physician should recognize the fact that the practice of medicine is rapidly being commercialized. It is important that he should recognize the bearing which this has upon his future usefulness to the sick.

The great variety of technical procedures and the expensive equipment required for the proper diagnosis and treatment of the sick necessitates a large outlay and requires a large and definite income.

The haphazard system which has characterized the business side of medicine will no longer suffice. There must be a more careful adjustment of the fees charged to service rendered and there must be less dependence upon chance in the matter of remuneration. With an equipment representing an investment of from ten to twenty thousand dollars the physician must be as careful in the sale of his services to purchasers of doubtful credit as the merchant of dry goods or groceries.

It is doubtful if many doctors ever attempted to estimate the actual profits of the business until the regulations of the income tax law made it necessary. It is doubtful if a great many are now quite sure what per cent of their income from the practice of medicine is profit. A few inquiries have shown that from 30 to 50 per cent of a doctor's income must be set aside for expense.

Let us say for instance that ones income amounts to \$9,000.00, and that his expense is \$3,000.00. If he is a city doctor he will need to make 1,000 calls at \$3.00 each to pay expenses or, if in the country, he will need to drive 6,000 miles. Now it is generally conceded that the average practitioner must consider one third of his business as non-remunerative, so that instead of 1,000 calls at \$3.00 he must make 1,333 calls, or he must drive 8,000 miles, to pay expenses.

There is no business that can afford to carry so large a percentage of loss. There is

no business that will justify so large a contribution to charity. It is no longer a duty or an obligation—but time and patience will be necessary to relieve the profession of this unnecessary burden.

We offer for your consideration as a partial solution of the problem what some one has called "Cooperative collections" and this seems a very appropriate name for it. It is particularly appropriate for the reason that the success of the plan depends very largely upon the degree of cooperation. The system of collecting accounts has worked very satisfactorily for other business men and after a year's experience we are fully convinced that it will prove equally satisfactory to the medical profession—but there must be cooperation.

Just as long as D. B. Ower knows that when Dr. Brown gets tired taking care of his family for nothing he can get Dr. White, and when Dr. White gets tired he can get Dr. Black, he won't pay Dr. Brown; and it is just on this one point that the success or failure of cooperative collections depends; or one should rather say it is the point which determines whether the system is or is not cooperative.

One of the first essentials is a complete organization; and the need of some system of this kind, and the results which other organizations have demonstrated may be expected from it, should aid materially in perfecting a 100 per cent organization in every county in the state. With a good county organization and the right kind of cooperation the dead beat element can be eliminated from any county—so far as the doctors are concerned—in six months.

Whenever a man who is able to pay his account is reported by a member of the society as being delinquent, every other member of the society should put that man's name on his list and he should insist upon cash in every transaction he may have with him. There is nothing unfair about it. It is simply a very common practice among business men of all classes, except doctors. There was at one time an ethical rule observed by the physicians in many parts of the country. A physician who regarded himself as ethical would



refuse to accept a patient who had been the patient of another physician until he had assured himself that all indebtedness to the other physician had been paid. This plan may still be pursued with considerable pecuniary benefit to every member of the society. However, there are a good many well-to-do citizens of Kansas that would be bankrupt if they paid all the doctors they owe.

While cooperation and a certain amount of fraternal interest are essential to success in this method of dealing with dead beats it should also be regarded as a simple business proposition. Each member of the society will be benefitted, for it is hardly reasonable to believe that any of us are immune to the invasion of dead beats. Some of us are more easily caught than others, but each of us gets caught sooner or later and more than likely by the same dead beat that caught the other fellows—because each of the other fellows has kept still about it.

There are several reasons why the collections and the records should be handled by a central office—by the State Society.

The expense of conducting a collection bureau in each county would be very much larger in the aggregate than that of one office.

The files of accounts and the records of the debtors attached grow in value as they accumulate. In a very short time the Bureau will be able to supply credit data concerning all the dead beats in the State.

One of the most persistent class of dead beats is the floating class, in which we find all kinds of mechanics, farmers, salesmen, teachers, laborers, etc. Many of them have found it easy to secure the services of a physician on the strength of their jobs; and they have also found it much easier to move without paying. Of something like 1,300 names sent in to the Bureau 25 per cent are unlocated. Slowly but surely we are finding them, and slowly but inevitably will their complete records appear in our files.

Those who refuse or fail to pay one doctor, have treated others doctors the same way, and we are learning slowly who the others

are and adding the information to our record cards.

One must not expect too much of the Bureau. It is not possible to collect all of the accounts sent to it. Collection is only an incident in the ultimate purposes of the Bureau. Much that has been done cannot be undone but if it is possible to prevent bad accounts being made we will have accomplished more than if we collected all the accounts sent us.

In order to make the Bureau a complete success it is important that all the members send in all of their accounts that have not been paid after a reasonable time and a reasonable effort to collect. The Bureau will take care of all of them for, as has been stated, the names and records of the won't pay class is the foundation upon which the future 100 per cent pay business is to be built up. Some of the members have failed to grasp the importance of this fact. They have entirely lost sight of the cooperative feature which promises ultimate success. Every member of the Society should send to the Bureau a list of his won't pay patients whether he wants collections made or not. There are three very definite classes of delinquents—those who can and won't pay; those who move away without paying; those who can't pay. Among the accounts sent to the Bureau there is a large per cent against people of the latter class.

If the physicians are to give the people the kind of service they have a right to expect, if they are to use the means and methods for diagnosis and treatment that modern medicine demands they should use, then they must increase their income or largely diminish their expense and loss accounts, for the average income of a Kansas physician will not justify the cost of maintaining an equipment such as is required for the highest degree of efficiency in the practice of medicine today—even though his resources may permit the original investment for installation. For this reason, if no other, it is important that the medical profession should readjust its business methods. It is a duty the doctor owes to the people he serves, and particularly to the people who pay him for his services. Sympathy sets no broken limbs nor will it settle the damage

claim when one has failed to confirm the accuracy of his work and protect his reputation by such means as science has provided. Pity will save the lives of no sick people, nor will all the sentiments combined excuse the doctor who fails because of neglect to use the means available for the diagnosis and treatment of his patient. Sentiment may handicap where science reigns supreme. If the physicians of Kansas are to render the service that modern medicine demands of them it is important that their practice should be made 100 per cent remunerative. There was perhaps a time when the medical profession had good reason for assuming the obligation of caring for the sick poor. If so the reason no longer exists and this burden should rest no more heavily on the shoulders of the doctor than on those of the lawyer, the banker, the groceryman, the butcher or the dry goods merchant. But since we have assumed the obligation and no one seems willing to relieve us of it, it is up to the medical profession to devise some plan by which this class of business may be made partially or wholly remunerative. Some of our country's economists, in studying the various industrial problems, found that sickness was responsible for much loss of time and a serious handicap to production. In their attempts to solve this problem a plan was proposed which contemplated a very considerable addition to the burden carried by the medical profession. Naturally the plan failed to receive its enthusiastic support. There are certain features of the plan, however, that may be adapted to our present needs in this matter of providing medical care for those who cannot pay. Let each county society adopt a sickness insurance scheme. If each member of the society will report the names of his patients who are unable to pay and the amount of his service to each for a year past, it will not be difficult to determine a rate of insurance that will cover the cost and that the majority of them can easily pay. Friends and relatives would no doubt assist some of those who were unable to pay even such an amount, aid societies and the various civic organizations would no doubt contribute the necessary amount for others, and in some counties at least, the county authorities would

very gladly arrange to provide for the medical care of the county poor by per capita contributions to such a fund.

There are of course many details that must be carefully worked out. The assessments must be ample without being burdensome, and only those who are unable to pay regular fees should be admitted. For it is not our purpose or to our interest to encourage dependency or pauperism, but to provide such relief for the destitute as our obligations require and our professional integrity justifies.

—R—

## LAW FOR THE DOCTOR

LESLIE CHILDS

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### Liability of Physician for Selling Drugs Without a Prescription

An interesting case, relative to the liability of a physician for selling drugs without a prescription, under an act requiring the issuing of a prescription before certain drugs could be lawfully sold, is reported under the title of *Niswonger vs. State*, in 179 Ind. 653. The case arose in Indiana, under the Drug Act of 1911 of that state, the facts being as follows:

Henry W. Niswonger was a licensed physician and pharmacist located in Allen county, Indiana. He was accused of selling one-eighth of an ounce of cocaine to one John Burton for the price of one dollar. The said sale was alleged to have been made without the written prescription of any duly licensed physician, veterinarian, or dentist, as required by the Indiana Drug Act.

The Drug Act, under which the prosecution was made, provides, among other things, as follows: "That it shall be unlawful for any druggist or any other person to retail, sell, or barter or give away any cocaine, . . . except upon the written prescription of a duly registered physician, licensed veterinarian, or licensed dentist. . . ."

From this report it appears that the defendant's main contention was that as a physician he had the right to furnish his patients medicine without writing a prescription. And, that if, in his opinion, cocaine was required, he could lawfully sell it without complying with



the provision of the Drug Act quoted from above.

The case was tried in the Circuit Court of Allen County, without the intervention of a jury, and resulted in the conviction of the defendant. From this judgment an appeal was prosecuted to the Supreme Court. In passing on the points raised the latter court in part said.

"The statute in question prohibits the sale, barter, or giving away of cocaine except under certain conditions, and it was not intended to exempt licensed physicians from its terms. There is nothing in the Act which will authorize a physician to operate a drug store and, as such druggist, to sell cocaine indiscriminately to any one applying therefor without having a written prescription as required by law. Such prescription is a prerequisite to any sale either of the drugs mentioned in the statute, and must be retained on file by the person making the sale." The Supreme Court thereupon affirmed the judgment of the lower court.

The holding may, upon first glance, appear to exalt the letter of the law at the expense of the spirit, but a slight examination of the subject quickly proves that this is not the case. The language of the Act is plain, clear, and concise, leaving no grounds whatever for an exception in favor of anyone. Had there been an intention on the part of the legislature to exempt physicians from the operation of the Act, it is reasonable to suppose it would have been expressed in the statute, as other exceptions were. Manifestly it was not within the province of the court to read such an exception into the Act, had it so desired.

Presumably, no offense would have been committed had the doctor taken the time to write a prescription for his customer before giving him the cocaine, though this may well be doubted, unless the customer was in reality a patient and as such in need of cocaine. Certainly if the customer was merely a buyer of cocaine, as it seems from the report, the doctor would have violated, at least the spirit of the law, in selling it either with or without a prescription.

It is worthy of note that the decision in this case is in harmony with a like case which

arose in Oregon under a similar statute, the latter case holding that the fact that the seller was a physician gave him no right to sell certain drugs—morphine in this instance—without a prescription, where the statute provided that they should only be sold on such a writing.

When it is also considered that the effect of permitting such an exception would tend to open the way, at least make it easy, for anyone possessed of a physician's license to engage in an illicit traffic with certain drugs, the soundness of the decision is further apparent.

—R—

## BELL MEMORIAL HOSPITAL CLINICS

### Clinic of Sam E. Roberts, M.D., F.A.C.S.

Assistant Professor of Otology

#### Impaired Hearing

In discussing the subject of impaired hearing before the Clinic today, I feel that we are taking up one of the most common maladies that affect the human race. It is variously estimated, from twenty to forty percent of persons reaching the age of fifty have some degree of defective hearing in one or both ears.

The auditory nerve is probably the most sensitive of the special nerves. One of the reasons for this is no doubt the fact that in the process of evolution, the cochlear division of the eighth nerve is of most recent development, hence more susceptible to toxic influences.

As a rule, when patients present themselves with a complaint of impaired hearing, it is only when they have lost at least one-third of their normal range. Certain warning signs such as a sensation of fullness in the ear or head noises, usually precede deafness. However, it may come on slowly, progressively, without any warning signs whatever.

Impaired hearing is rarely entirely an ear problem. To completely diagnose a functional loss of this sort, it is often necessary to call upon the various branches of medicine for consultation. One is never justified in rendering an absolutely final opinion on the diagnosis or prognosis, without a complete investigation of every possible cause. The ques-

tion is entirely too important to the patient. Upon our management of his case may depend his entire business career. Miraculous cures of deafness are indeed rare. Progressive deafness can usually be arrested, and unless there is actual destruction to certain portions of the conducting and perceiving apparatus, the prognosis for some improvement in hearing is good.

Three points, I hope to emphasize in today's clinic are: (1) A definite way of measuring hearing. (2) A classification of deafness. (3) The etiology and treatment.

To determine the degree of deafness, two conditions are necessary. (1) All tests must be accurately standardized with the normal. (2) Each main group of fibers in the organ of Corti must be tested separately.

To test each group of auditory fibers, I start the low C-128 d. v. per second, C-2 with 512 d. v. per second, and C-4 with 2040 d. v. per second, voice, whisper, watch and acuminometer. This tests a wide enough range of fibers for practical purposes.

To say a patient only has 10-40 of normal hearing, because he hears a forty-inch watch, ten inches, is not accurate, because only one set of fibers is tested. This same patient might hear the spoken voice 30-40, so it is necessary to consider the entire Cochlear division of the nerve, not just one set of fibers.

#### CLASSIFICATION

I have found it more satisfactory to classify deafness by the anatomical location of the lesion, rather than by the etiological factor, for so many times, there are multiple causes.

- (1) External ear.
- (2) Middle ear.
- (3) Nerve.
- (4) Oval window. (paracutic-oto-sclerosis).
- (5) Mixed, or combination of two or more.

Simple tests by tuning forks will usually put a case in one of the general classifications. For example, an increased bone conduction reduced low tones; high tones, fairly normal, mean a middle ear involvement. Decreased bone conduction reduced high tones, low tones not proportionately reduced, signify a nerve involvement.

To classify the other forms of deafness, one must consider the variations in tuning fork tests, the symptomatology and local physical findings.

External ear deafness requires very little discussion, because it is limited to eczemas, ceruminous, deformities, new growths, and foreign bodies, all of which only produce deafness when they obstruct the canal. They can be diagnosed by simple inspection.

Middle ear deafness, including both suppurative and non-suppurative, is our greatest class. Obstructive and infective lesions of the nose and throat, predispose to both.

In childhood, the exciting causes of suppuration are acute infections of the nose and throat, and the exanthematous fevers, while in adult life, the former play the principal part.

Of the exanthematous fevers, measles produces by far the greatest number of suppurations occurring early in the disease, and scarlet fever more destructive occurring in the second and third week. The destruction to hearing from these suppurations depends upon two things: (1) The management of the case by the physician, and (2) The virulency of the infection.

An ear drum should never be allowed to rupture, if the physician is in any way warned of the existing middle ear infection. The pressure in the middle ear, necessary for an abscess to rupture a tense membrane like the tympanic, is so great that it nearly always destroys some of the delicate inter-tympanic tissue, and leaves adhesions around these structures so essential to hearing. A physician should not treat measles or scarlet fever, without first equipping himself with a head mirror and ear speculum for the examination of the ear during the course of these diseases.

A free incision in one of the lower segments of the drum, followed by proper cleanings and wicks, allows the middle ear to drain, is usually healed by the time the discharge ceases, and has not impaired the hearing. Should a middle ear fail to heal, and the discharge continue over a longer period of time than the usual three to six weeks, other causes must be sought for the continuation of this infection. The nose, throat and mastoid cells



are usually the focus which keeps up this infection. If the mastoid cells are found to be involved and the radiographic findings are positive, even though there are no mastoid symptoms, the mastoid should be opened to relieve the middle ear of this infection and in turn, save the hearing.

The infection may be of such a virulent type, as is often seen in scarlet fever, and recently in the influenza epidemic, that no matter what measures are used, a great deal of function will be lost.

The effects of non-suppurative otitis, or what is commonly called catarrhal deafness, are always brought about by lack of ventilation to the middle ear through the eustachian tube.

Briefly, the gross and histo-pathological changes follow in about this sequence: (1) By lack of ventilation to the middle ear, the normal residual air is absorbed. (2) The tympanic membrane is retracted or forced in by atmospheric pressure, from the outside. (3) Engorgement of the blood vessels of the middle ear—a hyperemia. (4) Hypertrophy of this mucous membrane and sub-mucous tissue. (5) Eventually a structural change, mucous glands and sub-mucous tissue being replaced by fibrous tissue. (6) An imbalance in the inter-tympanic muscles, the tensor tympanic and stapedius being practically immobilized by the forced-in position of the drum, resulting eventually in atrophy from disuse.

This form of deafness yields well to treatment, if taken before the stage of structural change in the middle ear tissues. This structural change seldom takes place under twelve months. I have often seen patients restored to normal hearing in whom I have every reason to believe there had been some middle ear involvement for two or more years. All obstructive and infectious lesions, localized or remote, must be removed or treated. The general health and resistance of the patient must have careful attention. Very little treatment is required directly to the eustachian tube, or middle ear.

A few tympanic inflations are often helpful, but it is absolutely irrational to continue middle ear inflations over any period of time, after the cause of the original obstruction has

been removed. The delicate muscles and inter-tympanic structures are not so constructed to resist violent blasts of air, sent against them from an eusachian catheter, or Politzer bag. I seldom find it necessary to inflate, more than three or four times, any individual case.

#### NERVE DEAFNESS

Nerve deafness, most common after the age of thirty-five or forty, may be either peripheral, or central in its origin.

It will be noted that practically the only way the nerve is reached in its bony labyrinth is by some toxin or metabolic change in the blood. The causes of peripheral nerve deafness may be summed up as follows:

(1) Focal infection—the most common sources of which are the teeth, tonsils and sinuses. The less common are chronic foci, existing elsewhere.

(2) Syphilis, both acquired and congenital.

(3) a. Toxic labyrinthitis, from the infectious fevers, as meningitis, parotitis, scarlet fever, and measles. b. Suppurative labyrinthitis, complicating middle ear and mastoid suppuration by direct extension. c. Anemias.

(4) Drug toxemias.

(5) Disturbed endocrine function.

I consider the mouth infections are the ones most fatal to the auditory nerve. The picture of a man, middle aged, or past, with the ear trumpet or his hand cupped behind his ear to assist in hearing, is complete, with a mouth full of sepsis. Tonsils with deep crypts, with or without demonstrable pus, are many times the hosts of infectious organisms in the craters which are liberating toxins, lethal to such a highly specialized and recently developed sensory nerve.

The spirochete, or its toxins, attacks the organ of Corti very early in the disease. Two years ago, I ran a series of tests in the syphilitic ward in the Kansas City General Hospital. I found a short bone conduction and high tones reduced in practically every patient with late, secondary syphilis, and in more than seventy per cent of early, secondary syphilis.

When nerve deafness is found in children, or under the age of twenty-five, without a

history of the acute infectious diseases, congenital syphilis must be suspected and very carefully ruled out, before any other treatment is instituted. Focal infections rarely produce marked nerve deafness under the age of thirty.

Of the infectious diseases producing labyrinthitis and nerve deafness, meningitis comes first, and mumps second. Both may leave a permanently destroyed organ of Corti, and may, or may not destroy the peripheral, vestibular apparatus. Meningitis is more fatal to the organ of Corti. In the light of recent disclosures, in the equilibrium tests for the aviation service of the army, we found great numbers of cases where mumps had impaired the function of the vestibular apparatus, leaving only slight trace of its visit to the labyrinth on the organ of Corti.

When the auditory nerve is once affected by either of these diseases, I have never known a patient to recover any part of the lost hearing. The drug toxemias are rarely seen now. In the past, when huge doses of quinine were given at random, for malaria, before the scheduled dosage was controlled by the microscopic blood picture, a great many cases of nerve deafness were reported. Quinine deafness does not yield to any kind of treatment.

Nerve deafness, of central origin, is manifestly a neurological problem. Nerve deafness is often an early sign of brain tumors in the medulla or cerebellum, or at the cerebro pontine angle.

Tumors originating along the pathway of the auditory nerve, now occupy a big place in neurological pathology, and the neurologist is coming more and more to recognize the assistance of the otologist in localizing many of these lesions by use of the Barany and caloric vestibular tests.

#### OVAL WINDOW DEAFNESS

Oval window deafness includes oto-sclerotic, (paracutic), and adhesions around the foot plate of the stapes. I believe that paracutic deafness and oto-sclerotic deafness are symptoms, perhaps varying only in degree.

We may have symptoms and physical findings of stapedia fixation, and not be able to

demonstrate by the radiograph, or other means, absolute sclerosis. This type of oval window deafness should be called paracutic, until we have a more appropriate terminology.

In April, 1916, I published a report stating my belief as to the cause of this deafness. Five years experience, since that time, has served to confirm my original opinion that congenital syphilis was undoubtedly one of the main causes. Focal infection and disturbed endocrine function are also very common causes. I do not believe that any degree of catarrhal inflammation of the middle ear, no matter how severe, could ever be the sole cause of this condition. The symptomatic diagnosis, I base on the following:

(1) Bilateral deafness, without suppuration, or suppuration only as a coincidence.

(2) Gradual progressive onset between the ages of twelve and thirty. (A deafness of younger persons).

(3) Family history of impaired hearing.

(4) Paracutis, with or without tinnitus.

The physical findings are:

(1) Increased bone conduction in the beginning. Short air conduction for low tones. High tones fairly normal early in the disease.

(2) Negative Gelle.

(3) Patent Eustachian tube.

I have records of patients as young as ten years, and only rarely does it have its beginning after the age of thirty. A family history of deafness can usually be obtained. It is more common among women than men. In women, it usually begins about the time, or shortly after the menstruation starts. Child bearing and the menopause are very precarious times.

I have known of nearly complete loss of auditory function at childbirth, with only a small part of it regained in after months. There is no doubt, a relation between the auditory mechanism, and the activity, or inactivity of the internal glands at this time.

Paracutis deafness, or oto-sclerosis, has in the past been commonly known as "boiler makers' deafness," because the patient heard best in a noisy place. The increased intensity of sound waves in a noisy place produces fairly normal excursions of the foot plate in



the oval window, where there is a complete or partial fixation of the stapes, allowing the nerve to pick up vibrations which would be lost to a normal ear because of too great excursions of the stapes, making a confusion of sounds.

The eustachian tube is usually normal. I have found it dilated more often than obstructed. These patients will very often complain of a very annoying sensation, with only a slight blowing of the nose. Tympanic inflations are absolutely contra-indicated. In the later stages of the disease, the drum and the tympanic muscles are often very much relaxed and by use of Seigel's otoscope, the drum will be seen waving back and forth.

That this disease often has a syphilitic basis, I have proved repeatedly by the therapeutic test, namely a marked improvement under anti-syphilitic treatment.

Syphilographers have come to recognize that the spirochete may have a selective action for certain tissues. It may attack the auditory mechanism of an entire family down through several generations, and not attack them elsewhere. If the blood Wassermann is negative, a spinal fluid test should be made. Where a frank positive is obtained, the treatment should be pushed to the limit, with the arsenic preparations first, followed by mercury and iodine. If the serological report is negative, the endocrine glands should next be investigated. I am of the firm opinion that endocrine disturbances are a big factor in the cause of progressive deafness of various types. The relation of endocrine disturbances to progressive deafness is still an unwritten chapter in otology. Until we have a definite way of measuring endocrine function, our administration must be more or less empirical.

The metabolic rate should be determined in all suspected cases. There is usually an increase in the calcium and phosphorus eliminated in the urine. Callison, of New York, has recently made some very valuable observations on this subject. A few are as follows:

The cardiovascular system usually lacks tone. The blood pressure is inclined to be low. The glands of the skin are suppressed or sluggish in their action. Constipation is the rule, due to lack of tone in the intestinal

wall. In women, the menstrual cycle is generally out of order, irregular as to time and a reduction in the amount of menstrual flow. The bony metabolism is disturbed, the change consisting in the absorption of bone salts, with a cellular infiltration in the Haversian canals and along the vascular spaces.

The pathology brought out by Callison certainly corresponds remarkably well with certain definitely known ear pathology. His description of the bony changes corresponds well to our present knowledge of oto-sclerosis. The lack of muscular tone, he speaks of, is, as I have mentioned above, often noticed in the tympanic membrane and inter-tympanic muscles. He also makes the common observation that the four critical times of life, when progressive deafness makes its appearance, are puberty, adolescence, the menopause and actual old age. This certainly seems to be strong evidence of endocrine disturbances. He lays special stress on focal infection increasing the load of detoxication of the glands of the intestinal secretion, and rendering their action less efficient.

#### CONCLUSIONS

(1) Deafness is an ever-present subject in all physicians' practice. It requires most careful study and observation, often over a long period of time.

(2) We are never justified in saying a case is hopeless, until the whole body mechanism has been investigated.

(3) It is highly important that very careful records should be kept as to auditory function.

(4) Prevention of deafness may be accomplished to a certain extent by: a. Early recognition and energetic treatment of the acute diseases of the ear. b. Proper treatment of obstructive and infective lesions of the nose and throat. c. Dental observation from early childhood. d. Physical examination from time to time to determine general conditions of the body metabolism.

(5) The subject of deafness should command our most serious thought and study, for the persons so afflicted are often ostracized from both the social and commercial world.

## THE JOURNAL of The Kansas Medical Society

**W. E. McVEY, M.D. - - Editor**

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### Shall the County Society Decide?

There has been, at various times since the reorganization of the Society, several occasions for bringing into question the wisdom in the provision of our constitution and by-laws which makes the county society the sole judge of the eligibility of candidates for membership. On several occasions the Council has been asked to determine questions of membership, but has invariably referred the matter back to the county society. The regulations provide that a rejected candidates may appeal to the Council and its decision shall be final, but it is also provided that the county society shall be the sole judge. Here is a point which might be argued at some length without reaching a satisfactory conclusion. Unless these parts of the constitution and by-laws shall be amended it seems unlikely that questions of membership will ever be determined by other than the county society.

It is hardly likely that the delegates from any county society would vote for any amendment which would deprive it of the right to determine who should be admitted to fellowship in that body.

Several of the larger county societies have had reason to congratulate themselves that undesirable candidates could not be forced upon them. It is possible that some time an injustice may be done and a capable and

worthy man deprived of the association of his fellows and the benefits of membership in the society. It frequently seems so to members of other county societies, but it is a safe guess that when an applicant is repeatedly rejected by a majority of the men with whom he is constantly associated that it is not prejudice alone that influences them.

When a man once becomes a member of the society it is a very difficult matter to get him out. It is very much better to be very careful in the selection of members and certainly the members of the county society to which the application is made are more likely to investigate thoroughly the character of the applicant and are more likely to know if he is desirable than are the members of other societies.

Harmony among the members is essential to the success of a medical society and it would certainly be unwise to forcibly insert an element of discord. Nothing can be gained by disturbing the peace of a well organized and progressive county society.

—R—

### A Clinical Test?

Under bold headlines, such as "Medicine Holds No Place for Whiskey or Wine" we are told by the newspapers that a large majority of physicians from six states, replying to an alcoholic questionnaire sent out by the Journal of the American Medical Association, declared against the therapeutic necessity of whiskey, wine or beer.

In the first place the questionnaire was not sent to a majority of physicians and not all of those to whom it was sent replied. The official report states that it was sent to 1,026 physicians in Kansas and 741 were returned. Of these 289 declared that they regarded whiskey as a necessary therapeutic agent in the practice of medicine and 448 stated that they did not so regard it.

Kansas has been bone dry for several years, under a law which grants no special privileges to physicians. In this state, if it were possible to save a life by the administration of whiskey it would be unlawful to do so, for it is an offense against the law to have whiskey in one's possession. And this was the case



some years prior to the adoption of the Amendment. It is, therefore, considerable of a surprise to know that there are 289 physicians in Kansas who have not yet learned that whiskey is not a therapeutic necessity. And one must either presume that the 1,026 to whom the questionnaire was sent included all those who so regarded it; or one must admit that there probably are as many more among the 1,524 to whom the questionnaire was not sent who regard whiskey as a therapeutic necessity.

Whatever therapeutic value may be attributed to whiskey, wine and beer, these beverages are not *necessary* therapeutic agents. If whiskey has any therapeutic value other than that due to its alcoholic content it has not been shown. Although many tabulated reports on the effects of alcohol have been printed and commissions have been authorized to investigate the subject, there seems yet much diversity of opinion as to whether alcohol has or has not some beneficial therapeutic effects. Certainly it is a question which cannot be determined by vote of the physicians in the various states. One wonders what good purpose the questionnaire was expected to accomplish. As a general expression of opinion the returns must be quite unsatisfactory, first because the percentage of replies to the total number of physicians is not representative, and second because there are entirely too many who voted "yes" to the question regarding the therapeutic necessity of whiskey. In Maine, for instance, a state in which there has been prohibition since 1846, there were 153 who voted "yes" and 115 who voted "no." In Nebraska the vote stood 272 for and 291 against. In Rhode Island, 296 out of 778 were questioned and of these 161 replied and the vote stood 96 "yes" and 65 "no." If this vote has any significance, one may be pardoned for being curious to know what it is.

If it was intended for a clinical test it is hardly consistent with our teaching as to what should be regarded as clinical evidence. A declaration by a hundred or a thousand physicians that they have had beneficial results from the administration of alcohol has no more value as clinical evidence than a

declaration by a hundred or a thousand that they have had no such results.

If the therapeutic value of remedies must be decided by a majority vote of the practitioners of the country, nor pharmacopoea will need to be rewritten every six months.

Scientific medicine has no place for prejudice or sentiment and it is to be hoped that at some time we will have definite scientific data upon which to determine whether alcohol does or does not have any therapeutic value; and in the meantime, let us abide by the prohibitory laws and all other laws as all good citizens should.

—R—

### CHIPS

According to recent statistics the average American eats 2,664 pounds of food each year. The average Japanese eats 905 pounds of food each year. Perhaps that explains why the Jap is so short.

The Swedish movement has increased in vigor. A woman has been elected to the upper house of the Swedish Parliament. This is an added panacea to human ills and suffraging.

Japan inoculates dogs, instead of people, to prevent rabies. The report says that in 31,000 dogs so treated not one case of rabies developed. This is a hunch from the Flowery Kingdom that is worthy of notice.

The Chicago Tribune says that the findings of the National Research Council, that the intelligence of the average adult male in the United States is that of a fourteen year old child, explains why all boys over fourteen know more than their fathers.

Insanity is a disease of civilization mainly; being seldom found among the uncivilized or semicivilized races of men. During slavery an insane negro was rarely found, but at the present time they are as common, in proportion to numbers, as the insane whites. At one time it was thought that country life favored insanity but recent statistics show differently.

Mutch (Lancet, Dec., 17) presents an analysis of 200 cases of chronic arthritis. All cases of gout, venereal disease or tuberculosis of the joints and all cases of monarthrititis were

excluded. They are divided into upper zone infections, including the mouth and throat; and lower zone infections, including the bowel and its appendages. In the series analyzed, active sepsis was present in the throat and nose in 34 per cent and around the teeth in 52 per cent, while infective streptococci were recovered from the feces in 84 per cent. "At times much injurious infection takes place from the tonsils and jaw's, but the invasion from the bowel is of much more serious nature." The author reports a case in which colectomy resulted in complete cure although infected tonsils were left untreated. He also reports a case in which a pyorrhoea was left untreated and a colectomy was followed by a cure.

Dr. Carelli, Buenos Aires, has some notable improvements in gas inflation of the peritoneum in radiography. At a meeting of the Section on Electro-Therapeutics of the Royal Society of Medicine a number of skiagrams were shown in which the outlines and positions of the liver, spleen, pancreas, uterus, ovaries and fallopian tubes were well defined. In some the distended gall bladder and the kidneys also appeared. Carelli prefers carbon dioxide to oxygen and advises removal of the gas after the examination. By injecting gas into the peri-renal fat, thus producing an artificial emphysema around the kidney, he has been able to demonstrate the kidney with the same clearness as the other abdominal viscera and he also has been able to show the suprarenal gland.

Workers in the U. S. Department of Agriculture have found that carbon tetrachloride is destructive to all stomach worms and to hook worms. It is now being tried out as a cure for hook worm disease in man and it is announced that there is promise of success.

The census report for the year 1920 shows that in Kansas there were 855 deaths from tuberculosis while in 1918 there were 1,050; or 48.2 per 100,000 in 1920 and 59.8 per 100,000 in 1918. There were 2,021 deaths from diseases of the heart while in 1918 there were 1,993. From 1916 to 1920 there has been a considerable decrease in the death rate from

tuberculosis and a considerable increase in the death rate from diseases of the heart.

There were 1,283 deaths from cancer in Kansas during the year 1920. There were 1,222 in 1919 and 1,280 in 1918. The rate per 100,000 was 72.4 in 1920, 69.2 in 1919, 72.8 in 1918, 71.9 in 1917 and 72.4 in 1916. For the whole registration area the death rate from cancer has increased considerably, the rate for 1920 was 83.4 per 100,000 while 1919 it was 80.5 per 100,000.

Zimmerman (Arch. Derm. & Syph.) believes that there are inherited biological differences between white and negro patients in regard to syphilitic infection. The negro develops intense reactions on the part of cutaneous and osseous structures, and is relatively free from rabies and paresis. In white patients, syphilis more frequently runs its course with skin manifestations slight or absent, but there is a greater tendency to the development of tabes or paresis.

Wm. J. Mayo says: "We know little concerning the pathology of the spleen, but the pathologic conditions found in the spleen are obviously closely related to the pathology of the blood. In about 270 splenectomized patients we have one group of about 12 whom we were wholly unable to classify, even temporarily. It is best at this time to regard the spleen as little known territory, through which very few trails have been blazed, and to acknowledge our uncertainties in order that we may be more keen in interpreting old facts and gathering new ones."

There are a lot of people in this world who spend all their time and all their thoughts in trying to get laws passed to prevent other people doing something. If these people gave half as much attention to their own affairs as they do to other people's they would be much happier and more generally respected. Anyone who gives proper attention to his own business has no time to give to the other fellow's business.

Louis B. Wilson says: "The more one studies the pathology of tumors of the thyroid the more he is led to believe that they all have



their origin in proliferating "fetal adenomas." All other types of the different histological structures are theoretically derivable from this type. In many instances histological changes can be traced step by step in different portions of the same tumor and in different tumors removed from the same patient at different times."

Berman (The Glands Regulating Personality) says: "The deductions concerning human nature and human traits that an interplanetary visitor would draw from a study of our common law would be at least slightly humiliating to our incorrigible pride. Law courts, codes of civil contract and criminal procedure, the systems of subordination in armies and navies, castes and classes, men and women, employers and employes, teachers and pupils, parents and children, are based upon the fundamental, the conservative axiom that man, especially the common plain man, is a being incurably lazy, stupid, dishonest, muddled, cowardly, greedily, restless, obsessed with a low cunning and a selfish callousness and insensibility to the sufferings of his fellow creatures, animal and human."

Ghelfi reports three cases in which, although there was nothing to suggest syphilis at first, the failure of all ordinary measures in treatment of severe Raynaud's disease led to the assumption of a syphilitic origin. This was confirmed by the prompt and complete recovery under specific treatment. In one of the cases several phalanges of the feet had dropped off.—Ghelfi, A., "Raynaud's Disease and Syphilis." *Riforma Medica*, Naples, Feb. 12, 1921 (*J. A. M. A.*, April 16, 1921.)—(Menninger.)

An invitation to all laboratory workers of the state has been issued by the State Board of Health, Dr. S. J. Crumbine, Secretary, to meet in Topeka on January 27 with the view of perfecting a state laboratory organization. Many favorable and enthusiastic replies have already been received, and a large number of persons have signified their intentions of becoming members of this organization. Undoubtedly there are a good number of laboratory workers whose names were unknown to the State Board of Health and to whom, con-

sequently, invitations could not be sent. These are cordially invited to attend this meeting. Prominent speakers have been secured and pertinent laboratory problems will be discussed. Further information may be obtained from William Levin, Dr. P. H., Director Public Health Laboratory, Topeka, Kansas.

The U. S. Public Health Service has felt it necessary to prevent the too optimistic and extravagant claims recently appearing in the newspapers in regard to the curative effects of chaulmoogra oil derivatives on leprosy. While the use of the oil and of its derivatives has resulted in a considerable number of apparent cures, it is as yet too soon to tell whether these will be permanent.

The ethyl esters of chaulmoogra oil, the use of which has largely supplanted the oil itself, constitute a most valuable agent in the treatment of leprosy. In treating young persons and those in the early stages of the disease, the improvement has been rapid and striking; in older persons and older cases it is less so. Of the cases paroled from the leprosy stations in the Hawaiian Islands so far about eight per cent have relapsed and returned for treatment. This was to be expected; and on the whole the results have been so favorable as to make treatment of the disease hopeful. But only time can tell.

In a recent issue of *Archives of Dermatology and Syphilology*, there appears an interesting article on the influence of arsenical preparations on cutaneous tests, by Albert Strickler, M.D. The following conclusions are valuable.

1. The repetition of a luetin test in non-syphilitic patients is capable of producing positive luetin tests in about 21 per cent of our subjects.

2. The intravenous administration of arsenphenamin apparently stimulates the production of a luetin test in nonsyphilitic patients and in our series we are able to produce 53 per cent positive luetin tests following this form of intravenous therapy.

3. In the author's experience the intravenous administration of cacodylate of soda acts in the same manner as arsenphenamin, only more feebly.



4. The repetition of the tuberculin (von Pirquet) test may produce a positive finding, but very infrequently, occurring only one in the author's series of fourteen subjects.

5. The intravenous administration of ar-sphenamin is capable of producing a positive tuberculin test, previously negative. This occurred in three instances in the series of ten patients.

6. The anaphylactic food test made by either the endermic or scratch method does not seem to be influenced by the intravenous administration of either ar-sphenamin or cacodylate of soda. The investigation of the author of this phase of the problem is, however, not complete.

7. The author is now engaged in studying the effect of the arsenicals given by mouth on the luetin, tuberculin, and anaphylactic food tests.

The "club doctor" is not new to the cities and larger towns, but the idea has not seemed to impress the rural communities. Recent advices indicate that with the community church, the community hospital and other community ventures, the community doctor will now be the vogue. The little town of Rexford seems to be the pioneer in this line, having already organized a club and employed a doctor at a salary of \$1.00 per member per month. It is hardly likely that either the club or the doctor will find the plan very satisfactory.

Quinidin has suddenly leaped into prominence because of its striking effects in certain forms of cardiac irregularity. To see a heart that has been constantly irregular for one or two years because of a fibrillating auricle lose its lawless and rapid beat within a few hours under the influence of this drug and resume normal rhythm and rate and maintain these for months, must attract the attention of all. The conclusions of the few clinicians who have thus far reported their investigations are in remarkable agreement as to the fact that in about half of the cases of auricular fibrillation, Quinidin is capable of restoring to the sino-auricular node the control of the heart, so that, for a time at least, the working of the heart is normal. However,

while those who report on the effects of Quinidin are fascinated by the possibilities of the application of this drug in medicine, they are wisely conservative in their statements and frankly admit that much is yet to be learned concerning its proper use. It is to be hoped that the few favorable reports will not lead to the indiscriminate use of the drug in every type of irregular and rapid type of heart.—(Jour. A. M. A., Dec. 3, 1921, p. 1822).

The difficulties of oxygen therapy do not lie in any danger from undue intake of oxygen, for no abnormal increase in vital processes occurs even when mixtures very rich in oxygen are inhaled. The problem is rather one of technic in securing an actual introduction of more oxygen into the lungs under mechanical conditions of tolerable comfort. The usual haphazard methods of oxygen administration are of slight avail. When oxygen was administered with effective breathing devices in cases of cardiac insufficiency, relief of cyanosis and slowing of the pulse were secured. In pneumonia, the results were sufficiently impressive to permit the conclusion that oxygen therapy assumes a rational role in the treatment of the disease.—(Jour. A. M. A., Dec. 3, 1921, p. 1820).

While there is a growing belief that cod liver oil is of distinct therapeutic value in rickets, many of the experiments along this line are not sufficiently objective to be entirely convincing. Now, however, Park and Howland have furnished the direct ocular proof of the effects of cod liver oil on rickets which roentgenograms afford. The results in many cases have been so consistent that they feel justified in stating definitely that cod liver oil brings about a change in the bone which, if the diet is not too faulty, amounts to complete cure.—(Jour. A. M. A., Dec. 31, 1921, p. 2122).

—R—

### The Prodigal's Dreams

A DIVERSION

Some of the higher up Kansas doctors are having trouble of their own. One of the leading surgeons was called to remove a splinter of wood from a man's head. The doctor asked the man how he got the splinter of wood in

his head. The patient said, "By drinking wood alcohol." The doctor failed to remove the splinter and is liable to a damage suit.

The Editor of this Medical Journal had an epidermoid growth removed from his head. His friends say that it has improved his appearance, for he really needed a hair cut.

But the onus or stigma, if stigma it may be called, has fallen on the present President of the Kansas Medical Society. He is said to be a gymnopodist. That is he goes to bed with his feet naked. It is a sanitary fad. And as a further reason the Doctor claims it is a precedent sat by some of the old members of the profession now outside the state who did it periodically. The name gymnopodist sounds worse than it smells if properly fumi-gated.

The writer of this collection of jokes (they are intended as jokes) is known to the older members of the profession in Kansas. And it was always a pleasure to them to humor him when he joked by giving big horse laughs.

They sat down on some of his jokes when too hoary. But as a rule they were like the young hayseed who attended a swell dinner party in the city. When asked how the women were dressed said, "They had nothing on above the table and I was too much of a gentleman to look under the table."

In speaking of jokes, bulls and repartee, the Irish are given the blue ribbon with the negro as first cousin. The relationship (affinity) was demonstrated the other day in a quarrel between two negroes when one said to the other, "Yo ain't got no brains. Yo ain't got five cents worth o' brains."

"Brains," said the other negro, "who said brains? Nigga, I's got brains I'se nevah used yit."

This last story has a moral. It is also suggestive. The moral is if we have brains we should let as few of them lie idle as possible. Unused brain like any other organ weakens by non use.

The query is, how many of us use all the brains we are capable of using? No man can use all of his brain. That is he cannot exhaust its potentiality. The measure of the amount of brain we use is the measure of our success.

Nature is prolific in propagating the specie. She is wasteful, seemingly. She has observed the same rule in making man's brain.

Men's brains differ in size, contour and capacity and in potentiality of all structure. But the average man can use more of his brain than he does use. This use and non-use of brain is what differentiates between success and failure, reputation and the lack of reputation, ability and lack of ability, the safe doctor and the dangerous doctor, the reputable one and the disreputable one, the intelligent and the ignorant.

The conclusion is that no sympathy should be wasted on the average man, be he doctor or layman. Teach him, show him how and force him to use his own brain power for self preservation and success by giving him a chance and then let him alone. And the doctor who is deserving and wants to get ahead and be an integer to be counted in his profession can always have the goods the people want by making continuous requisition on his storage battery—his brain.

#### PICKUPS

Money is a great linguist. It speaks all languages.

The successful doctor *had* a chance or *took* a chance.

Ignorance is the cause of economic waste.

Some men are too busy for the amount of brains they have to guide them.

The only way to lessen sorrow is to create happiness.

Eating too much is the unpardonable sin against the body. It is never forgotten nor forgiven.

Let us not try to break the other fellow's record. Try, constantly, to break our own and we will establish a record.

The Mausoleum derives its name from King Mausolus whose monument was erected in the year 353 B. C. by Queen Artemisia.

An old saying—There is so much good in the worst of us and so much bad in the best of us, that it little behooves the worst of us to talk about the best of us.

The doctor's experiences are constantly contradicting medical theories.

The disagreeable things in the doctor's life are the sandpaper and emery wheels smoothing him down.

Women have more sense than men. When the baby begins to walk father wants to sell the cradle but mother puts it in the garret.

The doctor's confidence in himself is his companion in success. Over confidence in himself is his companion in failure.

The doctor, like the plants in the field, begins to go to seed when he quits studying.

The reason the average man cannot stand prosperity is, he is a poor (self) disciplinarian.

We are dissatisfied with ourselves when we meet a doctor with less sense than we have and earns (or gets) more money than we do—until we meet a doctor who has more sense than we have who earns less.

#### AS YOU MAKE IT

To the preacher, life's a sermon,  
To the joker, it's a jest.  
To the miser, life is money,  
To the loafer, life is rest.

To the lawyer, life's a trial,  
To the poet, life's a song.  
To the doctor, life's a patient,  
Who needs treatment right along.

To the soldier, life's a battle,  
To the teacher, life's a school.  
Life's a good thing to the grafter,  
It's a failure to the fool.

To the man upon the engine,  
Life's a long and heavy grade;  
It's a gamble to the gambler,  
To the merchant, life's a trade.

Life is but a long vacation  
To the man who loves his work;  
Life's an everlasting effort  
To shun duty, to the shirk.  
Life is what we try to make it.  
Brother, what is life to you?

—E. S. Kiser.

## SOCIETIES

### Elk County Society

Having received a letter from Dr. R. C. Harner, of Howard, Elk County, that a meeting was called at his office for Wednesday afternoon, December 28, 1921, I wired that I would meet with them.

After wearing out the local time tables in finding how to reach Howard from Iola in less than one rotation of the earth, I despaired and call my "Old Pal" Lewis Johnson, of Chamite, to come to my rescue.

He proposed taking his palatial Franklin and with our wives go overland. The roads through the beautiful country of Wilson and Elk Counties were delightful and our trip a dream.

At the called hour of 3:00 p. m. all met in the parlor of the Metropolitan Hotel.

Dr. Harner called the meeting to order. I was informed that a few faithful ones had kept up their dues and after a manner had tried to keep the body intact so this was merely a sort of Billy Sunday meeting in which all repledged their faith.

Nine out of a professional population of twelve in the county were present. All joined and paid their dues showing an enthusiasm that would make many of our larger societies blush. All were congenial and a nicer bunch of fellows I never met (a few were of long acquaintance).

Dr. R. C. Harner, Howard, was elected President; J. F. Costello, Howard, Vice-President; F. L. Depew, Howard, Secretary (who will be a live one). Drs. Costello, Hutchinson and Burr were elected as Censors.

Besides above named, D. A. Holland, Grenola, W. A. Staley, Moline, B. B. Mason, Grenola, and F. K. Day, Longton, were present and became members.

If I am able to prophesy, it is my opinion Elk County will be one of the strong elements in our state organization.

It certainly is an incentive for more intense activities on the part of a councillor in meeting with such a fine bunch of men.

P. S. Mitchell, Councillor, 3rd District.

### Stafford County Meeting

Society met in St. John at 2:30 p. m. Mem-



bers present: J. C. Butler, W. L. Butler, W. S. Crouch, T. W. Scott, Stafford, C. S. Adams, J. C. Ulrey, L. E. Mock, J. T. Scott, St. John; M. M. Hart, Macksville.

The following officers were elected for 1922: W. L. Butler, Stafford, President; M. M. Hart, Macksville, Vice President; J. T. Scott, St. John, Secretary-Treasurer. Delegates to the State Meeting, J. C. Butler; Alternate, W. S. Crouch. Censors, J. T. Scott, C. S. Adams, L. E. Mock.

The secretary was authorized to secure outside talent for the monthly program when it could be obtained.

The society requested the secretary to convey its sympathy and best wishes to Dr. L. A. Fisher, a member of the society who is recovering from a severe surgical operation in the Sterling Hospital.

Dr. T. W. Scott read a paper on Acute Laryngitis which elicited general discussion.

J. C. Ulrey will read a paper at the January meeting subject to be announced later.

J. T. Scott, Sec.

#### Wilson County Society

Met and banqueted at high school building, served by domestic science class. A vote of appreciation given the girls.

After banquet, convened at Commercial Club. Reading of previous minutes approved.

Moving pictures, 5,000 feet, proposition made by Chicago firm. A letter from Mitchell, of Iola, read and it was agreed for secretary to take matter up with Mitchell, and if we are satisfied to make arrangements to have picture shown at Chanute, Wilson, Allen and Neosho counties participating in expense.

Election of officers being next in order, Dr. F. M. Wiley was elected President, Dr. O. D. Sharp Vice-President, and Dr. E. C. Duncan Secretary and Treasurer.

The same board of censors and committee on necrology continued by President until next meeting.

Dr. T. L. Higginbotham, of Wichita, who limits his practice to tonsil surgery, was present by invitation. A most instructive talk was given by the Doctor, after which questions were asked and answered. An entirely

new bunch of ideas was presented by Dr. Higginbotham and certainly every doctor present was much benefitted. Come again, Doctor.

Dr. Addington discussed the advisability of lowering obstetric fees from \$20.00 to \$15.00, mileage extra. But the Society was of the opinion this would be a bad move. We feel that in certain cases it is all right to use one's judgment, but the standard fee remains \$20.00, plus mileage.

Dr. Dodge, of Fall River, made the following motion, which was seconded and carried:

"That compulsory vaccination be advocated by members of this Society. That we take the matter up with our Senator and Representative with the idea of having such a law put on the statute books of the State of Kansas. That such a law is for the best interests of the citizens of this State."

Dr. J. S. Jacoby's application having been favorably passed upon by the censors, he was duly elected a member of this Society.

Those present: Flack, Wiley, Young, Duncan, Sharp, Smith, McGuire, Dodge, Reece, Preston, Jacoby.

Dr. Bobo, of Altoona, and Dr. James Bntin, of Fredonia, were visitors. Dr. T. L. Higginbotham, of Wichita, the guest of honor.

The date and place of the next meeting were left open.

E. C. Duncan, Sec.

#### Rice County Society

The Rice County Medical Society met in the Hospital Parlors at Lyons, December 22, at 7:30 p. m. The following members were present: Doctor Schmidt, President. Doctors McCrea, M. Trueheart, Wallace, Currie, Walker, McBride, Fisher and Ross. Dr. Price, of Lyons was also present.

An interesting number of clinical cases were reported by different members.

Doctors Walker and Schmidt gave papers on Scarlet Fever, which received general discussion by those present.

The Treasurer's report for the year was given.

Election of officers for the coming year resulted as follows: President, Dr. F. E. Wallace, Chase; Vice President, Dr. J. S. McBride, Lyons; Secretary-Treasurer, Dr. H. R. Ross, Sterling; Censor for three years, Dr.

Maggie L. McCrea, Sterling; Delegate for two years, Dr. C. E. Fisher, Lyons.

No meetings will be held in July or August. Regular meetings are held the last Thursday of the month, and the various sections of the county are visited in these meetings throughout the year.

The January meeting is to be held in Lyons.  
H. R. Ross, Sec.

### Harvey County Society

The members of Harvey County Medical Society dined together at the Auditorium Cafe, Newton, Kan., December 12, 1921. The program was given at Dr. A. E. Smolt's Office, Dr. H. M. Glover, presiding. Others present: Drs. Chesky, McMillian and Thomas, of Halsted; Wedel, of Hesston; and J. T. Axtell and L. C. Axtell, Miller, Smith, Smolt, Martin, McClellan, Haury, Grove, Hertzler, Kalbfleisch, Haake, Bennett, White, Porter, and Abbey, of Newton. "Crushing Injuries of the Extremities" was the subject of Dr. Smolt's paper, emphasizing early passive motion, careful selection of locations for incision and other physical methods of treatment. Dr. Bennett gave a paper on "Amebic Dysentery," advising vigilance and care in diagnosis and treatment of cases of this nature, especially in men lately returned from overseas. Officers elected for 1922 were, President, V. E. Chesky; Vice President, M. C. Martin; Secretary-Treasurer, Frank L. Abbey; Delegate, H. M. Glover; and Censor, A. E. Smolt. The Society had 32 members this year and held 12 meetings with good interest and attendance.

F. L. Abbey, Sec.

### Elk County Society

The Elk County Society met at the Metropolitan Hotel, Howard, Wednesday, December 28, for election of officers for 1922. The following officers were elected: President, Dr. R. C. Harner, Howard; Secretary-Treasurer, F. L. DePew, Howard; Vice-President, Dr. F. K. Day, Longton; Censors, one year, Dr. J. F. Costello, Howard; two years, Dr. R. C. Hutcheson, Elk Falls; three years, Dr. Wayne B. Burr, Lognton.

New Members: W. A. Staley, Moline; R. C.

Hutcheson, Elk Falls; D. A. Holland, Grenola.

Visiting Members: P. S. Mitchell, Counsellor 3rd District, Iola, Kan.; L. D. Johnson, Chanute, Kan.

It was voted to have a meeting of the society at least once a month, by call of the president.

F. L. DePew, Sec-Treas.

### Douglas County Society

Dec. 19, 1921

At a recent meeting the Douglas County Medical Society was favored with an address and clinic by Dr. P. V. Stuckey of the U. S. Public Health Service of Missouri on the subject Cardio Vascular Syphilis, which was most instructive and interesting.

The treatment of the disease was then taken up by Dr. C. C. Denny, of Kansas City, Mo., who went into detail of the more recent methods now being used.

The meeting was well attended by members who responded well to the efforts of both speakers.

Jan. 5, 1922

The annual election of officers for the Douglas County Medical Society occurred January 5, 1922, with the following result: President, Dr. H. L. Chambers; Secretary, Dr. J. R. Bechtel; Delegate to the State meeting, Dr. W. C. McConnell.

J. R. Bechtel.

### Ford County Society

The monthly meeting of the Ford County Medical Society was held at the office of Dr. H. B. Wood in the court house at Dodge City, Kan., Friday, January 6, 1922.

Dr. J. G. Janney, President, presided and the following officers were elected for the current year: Dr. G. O. Speirs, President; Dr. D. W. Hays, Vice President; Dr. Cyrus Wesley, Secretary and Treasurer; Dr. G. W. Hollembeak, Censor; Dr. G. W. Hollembeak, delegate to state convention; Dr. C. E. McCarty, alternate.

W. F. Pine, Sec.

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### DEATHS

John R. Purdum, Wetmore, aged 57, died in November, from heart disease. He was



graduated from Lincoln Medical College, Lincoln, Neb., 1894.

James K. P. Kessler, Cherryvale, Kan., aged 77, died November 18, from heart disease. He was graduated from the Cincinnati College of Medicine and Surgery in 1881. He was city physician of Cherryvale.

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## BOOKS

Ephriam McDowell—"Father of Ovariectomy" and Founder of Abdominal Surgery—With an appendix on Jane Todd Crawford, by August Schachner, M.D., F.A.C.S., Louisville Kentucky. Octavo volume of about 350 pages. Attractively printed and profusely illustrated with plates in double tone. Price \$5.00. J. B. Lippincott Company, Publishers, Philadelphia and London.

The story of McDowell's life is a story of the greatest neglect to which one of the foremost hero's of medicine and benefactors of humanity has ever been exposed. The motif of the book is to call attention to this neglect and to arouse an interest in this pioneer master of abdominal surgery.

The lessons which McDowell's ovarian surgery taught are thoughtfully emphasized. The author explains how abdominal surgery gradually evolved from the facts which these lessons so clearly and firmly establish and why McDowell is credited with the title of founder of abdominal surgery.

The struggle which attended the adoption of ovariectomy and which lasted for fully a half a century is vividly set forth, and the persecutions to which the earlier defenders were subjected is of the keenest interest. It was not until 1861, or more than a half century after McDowell's first ovariectomy before a favorable word was said for it by a French professor in a French university. In England the situation was very little better as it was not until a third of a century thereafter that a London hospital could boast of a successful ovariectomy.

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Epidemiology and Public Health, a text and reference book for physicians, medical students and health workers in three volumes, by Victor C. Vaughn, M.D. Volume I, Respiratory Affections. Published by C. V. Mosby Company, St. Louis. Price \$9.00.

It seems most appropriate that Vaughn should write such a work as this. His large experience and exceptional opportunities for

the study of epidemic disease certainly fit him for the undertaking. The first volume is exceptionally well prepared and is a sufficient guaranty of the excellence of the completed work.

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Medical and Surgical Reports of the Episcopal Hospital of Philadelphia. Volume V. Edited by Astley P. C. Ashhurst, M.D., and printed by William J. Dorman, Philadelphia.

This is the first volume of these reports to appear since 1916. It contains a large amount of valuable material, many interesting case reports. The papers are largely upon surgical subjects.

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1920 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 1392 pages, 446 illustrations. Philadelphia and London: W. B. Saunders Company. Cloth, \$12.00 net.

Just as the Mayo Clinic has become an important factor in American medicine so these annual reports have become a necessary addition to every up-to-date medical library. The papers which they contain are generally regarded as the latest words in the progress of medicine. No attempt will be made to describe the contents of the last volume, but it may be of considerable interest to know that among the very interesting articles will be found a series of papers by Rosenow on pneumonia and influenza.

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The Medical Clinics of North America—Volume V, Number III (The Philadelphia Number, November, 1921). Octavo of 362 pages, 44 illustrations. Philadelphia and London: W. B. Saunders Company, 1921, published bi-monthly. Price per clinic year: Paper, \$12.00. Cloth, \$16.00.

The Medical Clinics for November is the Philadelphia number and we note first a clinic by James M. Anders on functional cardiac disturbances, a clinic by David Reisman on the abdominal manifestations of thoracic diseases. Joseph Sailer contributes an article on mistakes in abdominal diagnosis. Chevalier Jackson gives a bronchoscopic clinic Kolmer discusses the sources of error in the Wassermann reaction. Landis contributes a paper on occult tuberculosis. George E. Pfahler has a paper on the treatment of hyperthyroidism by radiation. Another article which will be of considerable interest is by Walferth on the Quinidin therapy in heart disease.



The Surgical Clinics of North America (issued serially, one number every other month). Volume I, Number 5 (The Mayo Clinic Number), 296 pages, with 163 illustrations. Per clinic year (February, 1921, to December, 1921). Paper, \$12.00 net; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The Surgical Clinics for October, the Mayo Clinic number, will be of unusual interest to the profession generally. One of the very interesting contributions is by William J. Mayor on Splenic Syndromes. Louis B. Wilson discusses the malignant tumors of the thyroid and reports some cases. Balfour describes the use of the actual cautery in treating benign lesions of the stomach and duodenum.

Hedblom contributes a paper on primary tuberculosis pericarditis that should be carefully read. Adson has an article on the treatment of brain tumors. There are many other very interesting papers in this number of the clinics.

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Pediatrics. Edited by Isaac A. Abt, M.D. Orthopedic Surgery. Edited by Edwin W. Ryerson, M.D. Being Volume IV of the Practical Medicine Series, under general editorial charge of Charles L. Mix, M.D. Published by The Year Book Publishers, 304 South Dearborn St., Chicago.

This is a review of the progress in pediatrics and in orthopedic surgery for the year previous to its publication. It is one of a series of several volumes, issued at about monthly intervals, covering altogether the whole field of medicine and surgery.

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The Glands Regulating Personality. A study of the internal secretions in relation to the types of human nature by Louis Berman, M.D. Published by the Macmillan Company, New York.

The author has undertaken to establish a relationship between the internal secretions and human nature—used in its broadest sense. "The internal secretions constitute and determine much of the inherited powers of the individual and their development."

"The most precise bit of knowledge we possess today about man is that he is the creature of his glands of internal secretion." The author has presented a very comprehensive theory of gland influences upon character and physique.

## Cephalic Chancroid

Herbert A. Potts, Chicago (Journal A. M. A., Dec. 10, 1921) reports a case of an extragenital chancroid occurring on the chin, with a definite submental adenitis or bubo. There was also a genital chancroidal infection. The submental adenitis resulted either from a facial or an intra-oral infection. Appropriate chancroidal treatment was instituted, and hot dressings were applied beneath the chin. Five days after entrance, fluctuation was thought to be demonstrable below the chin, and an attempt was made to aspirate the gland, but was unsuccessful. During this time the lesion on the chin became larger and encrusted. When the crust was removed, a ragged ulcer about 1 cm. in diameter resulted, looking not unlike the chancroidal infection on the penis. Ten days after entrance, the gland beneath the chin was opened and curetted, the result being an abundance of thick caseous material. On account of the rapid liquefaction of the gland, and its painful character and the similarity between the lesions, a tentative diagnosis of chancroid of the chin was made. Cultures of this material yielded *B. ducreyi*. The second case reported by Potts was one of encephalitis following extraction of a tooth with a root abscess. The first symptoms appeared the morning after the extraction. Evidently the encephalitis was due to a bacteremia, precipitated by the disturbance of the focus of infection.

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## Adrenalin

Adrenalin has been associated with the name of Parke, Davis & Co. for so many years that one suggests the other. It was that firm which met the challenge of therapeutic progress in 1900 by directing its research work to the isolation of the active principle of the suprarenal gland, and which early in 1901 announced the success of its investigations and experiments. Since then Adrenalin has been universally recognized as a P. D. & Co. product—which it still continues to be.

A neat little brochure on "Adrenalin in Medicine" is offered by the manufacturers to interested physicians.

### Serotherapy of Bacillary Dysentery in Children

Because of the enthusiastic reports in favor of specific serum therapy in both Flexner and Shiga varieties of bacillary dysentery in adults, Hugh W. Josephs and Wilburt C. Davison, Baltimore (*Journal A. M. A.*, Dec. 10, 1921), have, during the last two years, administered antidysenteric serum to twenty children, aged from 6 months to 4½ years, suffering from dysentery. Polyvalent (Shiga and Flexner) anti-dysenteric serum in doses of from 20 to 50 c. c. was injected intramuscularly or subcutaneously in all of these patients. In some instances as many as six doses, at intervals of from twenty-four to forty-eight hours, were employed. In addition, in two cases of Shiga infection, they injected the Rockefeller Institute Shiga dysentery antitoxin in doses of 20 c. c. The polyvalent serum agglutinated all of the strains of dysentery bacilli they isolated. Its Shiga antitoxin content was not titrated. As far as can be judged from this limited series of cases serotherapy did not influence the mortality or the course of the disease. In the very ill, especially in young infants, the pain at the site of injection was a contraindication to the use of intramuscular injections.

—R—

### Injurious Combined Effect of Roentgen Rays or Radium, and Topical Remedies

Roentgen rays and radium, according to George M. MacKee and George C. Andrews, New York (*Journal A. M. A.*, Nov. 5, 1921), may make the skin hypersensitive to stimulating, irritating and caustic agents locally applied. As a rule, the skin will react normally to topical remedies in a month; but if there has been a reaction, the hypersensitivity may endure for several months, and if the skin has been permanently injured, the hypersensitivity may be detected for a year or two, or even indefinitely. Stimulating, irritating and caustic remedies, when locally applied, produce hypersensitivity to roentgen rays and radium for about a month. If the skin reacted to the local remedy, increased "radiosensitivity" is the rule for one month after the complete disappearance of the reaction. A physician about to prescribe topical

applications of an irritating nature should first ascertain whether the parts to be so treated have been recently irradiated or are to be irradiated. A physician about to apply roentgen rays or radium to a patient should first ascertain whether irritating topical remedies have been recently used; and the patient should be cautioned against additional local treatment without the knowledge and consent of the physician who applied the roentgen rays or radium.

—R—

### Sodium Chlorid for Tension Headaches

The fact that headaches, following intestinal stasis, are often relieved by the administration of saline purgatives long before the cathartic action of the drug itself has taken place, led Walter Hughson, Baltimore (*Journal A. M. A.*, Dec. 10, 1921), to carry on experimental work with strong solutions of the common salts, in the treatment of headaches. Because of the relatively high osmotic pressures of its solutions and because of its comparative harmlessness, sodium chlorid was selected as the salt for human administration. That both the sodium and the chlorid radicals are absorbed in the intestine was also considered an advantage, as no drastic purgation would follow its use. The irritating action of the salt in the stomach has been obviated by the preparation of compressed tablets salol coated, each containing 1 gm. (15½ grains) of sodium chlorid. Such tablets pass unchanged through the stomach, yet liberate the salt when the alkaline secretions of the small intestine are met. The clinical use of these tablets has been somewhat limited thus far, but sufficient observations have been made to show that they have a beneficial effect in practically all of the milder forms of headache, giving relief in from thirty to forty-five minutes. From two to three tablets should be taken every five minutes with as small an amount of water as possible, up to a total of eight or ten. In severe headaches from twelve to fifteen or even more may be necessary. The administration of as much as 30 gm. (nearly 1 ounce) of sodium chlorid is, in a healthy adult, wholly safe and is far beneath the toxic limit. Contraindication to the use of salt is found only in certain cases of nephritis, hy-



pertension and in persons past middle age whose salt tolerance is known to be low. The administration of sodium chlorid in the manner suggested should also prove of diagnostic value in differentiating the headaches due solely to the heightening of the intracranial tension from those of other origin.

—R—

### Fractures of Femoral Neck and Trochanters

A method of treatment of fractures of the neck and trochanters of the femur is detailed by Charles E. Ruth, Des Moines, Iowa (*Journal A. M. A.*, Dec. 3, 1921), which he says may be relied on to produce as good results as any other known method and which is not subject to the limitations which bar the others from universal use. Normally, the iliopsoas is an internal rotator, but when the neck is fractured it becomes an external rotator. In fractures of the neck, it overlies the fracture line and forces nonbony tissue between the fragments. It is thus the greatest factor tending to displacement and nonunion. This method uses the capsular ligament as a splint by making the capsule tense through the application of traction in two directions. The application of the traction needed is not difficult, but requires care in the angles at which the traction is set, the amount of traction and the attachment of the adhesive plaster to preserve the skin in good condition. Impacted fractures should not be broken up if there is no deformity, but the apparatus is applied to prevent the disimpaction, with all the evidences of complete fracture, which follows the absorption of the rough surfaces of the fragments prior to consolidation. Impacted fractures with deformity are broken up, reduced and treated the same as nonimpacted fractures. Fractures through the base of the neck present the same deformities as those through the narrow part, and require the same treatment. Trochanteric fractures repair more easily and rapidly. No forcible reduction should be attempted, but the traction of the apparatus depended on to reproduce normal position. When the lesser trochanter is torn off, the leg is placed in a Hodgkin splint and swung from a Balkan frame, the thigh flexed on the trunk. Union occurs within four weeks,

after which the lateral traction is removed. In four weeks more all apparatus may be removed, and the patient walks without aids in from six months to one year. Essentials are: accurate diagnosis, complete reduction, sufficient amount of traction, and daily verification of the position during the early part of the treatment. This method is said to be correct in principle, simple of application, convenient during treatment, and satisfactorily efficient.

—R—

### National Board of Medical Examiners

The first examination of the National Board, under the new plan, in Parts I and II will be held as follows:

Part I, February 15, 16 and 17, 1922, inclusive.

Part II, February 20 and 21, 1922, inclusive.

Applications for examination should be received no later than January 15, 1922. Application blanks and Circulars of Information may be had by writing to the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

—R—

### Vaginal Cysts

One large cyst and two small vaginal cysts have come under the observation of Clarence B. Ingraham, Denver (*Journal A. M. A.*, Nov. 5, 1921). The two small cysts were both inclusion cysts, and followed perineal lacerations. They occurred in scar tissue near the vaginal orifice. The large cyst occurred in a primipara, 23 years of age. In the fifth month of pregnancy, there was a feeling of pressure in the vagina, and a month later a protrusion, resembling a large cystocele, appeared. This cyst by the seventh month was the size of a goose egg, extended into the vault of the vagina, was sessile, with the anterior vaginal wall rather lax over the cyst. When the patient went into labor at term, the cyst was tapped, and so collapsed as not to interfere with the birth, which was normal. About six weeks after labor, the cyst had refilled, was not so large as during pregnancy, but protruded on walking, was annoying and for temporary relief was aspirated. When the child was 4 months old, Ingraham removed



the cyst. It extended from the vulva up into the left vaginal fornix and was the size of a goose egg. The cyst, thin walled, was attached between the anterior vaginal wall, urethra and bladder throughout the length of the vagina. It dissected away easily. The outside of the wall was lined by the vaginal squamous epithelium. The lining of the cyst was a single layer of columnar epithelium; no cilia were demonstrated.

—R—

### Cast Treatment of Gonorrheal Arthritis

Clyde W. Collins, New York (Journal A. M. A., Dec. 3, 1921), gives some interesting data on gonorrheal arthritis. Between August, 1919, and May, 1921, twenty-six of the 517 patients were treated with heavy plaster-of-Paris casts. Treatment by cast was twice interrupted, once by a series of about twenty patients treated with Cano's serum and again by fifteen patients treated with sodium iodid. These methods having proved inefficacious, the treatment by casts was resumed. Of these twenty-six patients treated by casts, eight had single joint involvement and eighteen multiple joint involvement. Three out of four cases occurred in the first fifteen days of the acute gonorrhea. No relapse of the rheumatism has been noted without a new attack of gonorrheal urethritis. Each relapse of arthritis occurred during the acute period of a reinfection with gonorrhea and resulted in a new arthritis. The large joints once affected were invariably affected during the next attack; the only difference in joint involvement being in the small joints of the hands and feet. Three patients gave a previous history of rheumatic fever and four of previous trauma of joints. The encouraging results obtained from the plaster treatment have been due to the heavy cast, that not only places the affected part at absolute rest but also anchors the patient to his bed. Careful attention to orthopedic principles in applying the cast is of the utmost importance. The joint above and below the one involved must be immobilized; all bony prominences and inflamed part must be especially well padded with cotton wadding, and the plaster must not be applied too tightly over the joint lest the pressure increase the pain. As soon as possible after final removal of the

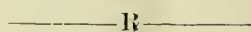
cast, the limb is given heat therapy by means of an electric light baking apparatus. Various gonorrheal vaccines and serums, sodium iodid and typhoid vaccine were used in a series of forty-nine cases of gonococcus infection of the joints. Most of these patients were relieved from pain for from twenty-four to forty-eight hours after injection. The length of time that the patient is free from pain depends on the reaction produced. When the temperature falls to normal after the chill, the pain usually returns. Strapping the joint with adhesive plaster and splinting the joint with boards and gauze bandage have not proved satisfactory because the joint is not adequately immobilized. Sodium salicylate up to 120 grains in twenty-four hours has not given relief. The cast treatment of gonorrheal arthritis seems to prevent such complications as ankylosis and suppuration. The cast treatment wholly and immediately relieves pain and cures the patient. The details of making the casts and of baking are described.

—R—

### Endocrinology

The mere fact that hundreds of physicians and thousands of patients have testified to having profited by the use of this or that endocrine preparation, R. G. Hoskins, Columbus, Ohio (Journal A. M. A., Nov. 5, 1921) says, carries no conviction of its actual value to one who reflects that the pharmacopeias are filled with useless medicaments of which the same can be said. Reports of cures are convincing only when accompanied by adequate evidence that suggestion and other accessory therapeutic measures, as well as mere coincidence, have been ruled out as the determining factors. So long as practitioners fail to realize the essential requirements of scientific evidence and to educate their patients along this line, not only pseudo-endocrinology but also a multitude of other pseudoscientific cults will continue to flourish. The outstanding fact is that endocrine physiology is largely in a state of uncertainty, whereas the facile applied endocrinology with which we are so unfortunately familiar assumes a large body of substantiated fact. Deductive reasoning, which is the mainstay of a considerable class of self-styled practical en-

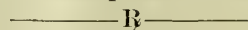
doocrinologists, can be productive only when the premises are sound. However probable the existence of numerous circulating hormones, proof of their existence is almost completely lacking. The existence of hormonal antagonism remains yet to be proved, however fascinating it is to theorize about. A fantastic theory that has had some currency is that the body cells have a capacity to select from a pluriglandular mixture any hormones they happen to need and to discard the rest. All the evidence is to the contrary. Both clinically and experimentally it is sufficiently plain that the law of mass action has not yet been repealed. To deduce from the unfortunate existing situation, however, the conclusion, which certain shallow observers seem to have drawn, that the field of endocrinology itself is merely a mirage, is quite as crass a mistake as to accept as substance every flattering prospect the eye discerns. Endocrinology is one of the most difficult fields of biology. The problems presented are fundamental and quite as fascinating as can be found in any field. There is no easy road in endocrinology, either to discovery or to knowledge already gleaned. There are many problems demanding solution, which require, not genius, but merely accuracy and patience together with recognition of the ordinary criteria of evidence in any field. What is needed is more work, carefully planned and carried out, less shallow theorizing on the part of those dabbling with the problems, and the consistent but discriminating support of the medical profession.



### Laboratory Findings in Early and Late Syphilis

The serologic and spinal fluid records of a large number of cases were analyzed by John A. Fordyce and Isadore Rosen, New York (Journal A. M. A., Nov. 26, 1921), and these findings were correlated with the clinical signs and symptoms presented by the patient. Thorough investigation of every syphilitic patient, early in the disease, is strongly recommended. About 25 or 30 per cent of all secondary syphilitics show infection of the central nervous system. In the majority of cases this can be determined only with certainty by a lumbar puncture, as in the early

months clinical signs are often negligible. Men give a much higher incidence of nervous system involvement than women. There is no proof that arsphenamin adversely affects the optic, auditory or other cranial nerves. On the contrary, very definite data were obtained showing arrest of optic atrophy by the proper use of the drug. A persistently negative Wassermann reaction in the blood is frequently found with positive phases in the fluid and with an active process. A patient should never be discharged as cured without the information gained by lumbar puncture. When this has been neglected, it has in many cases led to disastrous consequences and incurable conditions. Pupillary anomalies and cranial nerve paralyses are often pathognomonic and are always suggestive of nervous syphilis. In papillitis and optic neuritis occurring in early syphilis, vision may be normal, with only slight narrowing of the fields. The necessity for routine ophthalmologic examination must, therefore, be emphasized so that the earliest changes may be detected before irreparable damage is done to the eye. The absence of clinical signs and symptoms does not exclude syphilis of the central nervous system. The classical signs and symptoms of tabes may occur with a negative blood and spinal fluid. The authors regard the colloidal gold reaction as of great diagnostic and prognostic value. A syphilitic curve excludes paresis. A paretic curve is always present in paresis in untreated cases, but may be encountered in meningo-vascular syphilis and may disappear under treatment. A paretic curve is also found in some types of early neurosyphilis, and disappears as the other phases become negative.



### Neurosyphilis With Negative Spinal Fluid

Cases of neurosyphilis having normal findings in the cerebrospinal fluid are discussed by Harry C. Solomon, Boston, and Joseph V. Klauder, Philadelphia (Journal A. M. A., Nov. 26, 1921). The most frequent form of neurosyphilis in which the spinal fluid findings are negative is the vascular type. Cases of this sort are cited, also cases in which mildly pathologic spinal fluid findings bridge the gap between the negative spinal fluid cases of tabes and those with the usual type



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of spinal fluid findings. In addition, cases are cited which, as a result of intensive arsphenamin and intraspinal injections, become negative serologically, but the subjective and objective symptoms of tabes remain unchanged. Another group, variably termed abortive, "burnt out" or imperfect tabes, includes those cases having no subjective symptoms and a paucity of neurologic abnormalities which consist principally, if not entirely, of one or the other types of pupillary abnormality. The presence of a normal spinal fluid in this class of patient, previously untreated, points to a spontaneous cessation of the underlying neurosyphilitic process. In these cases, the pupillary abnormality probably represents a "neurologic scar" of a former neuraxis involvement. Isolated pupillary abnormality, in this type of case, together with a negative spinal fluid, does not warrant the belief that this objective symptom is a forerunner of tabes or some other neurosyphilitic process. Moreover, the absence of subjective symptoms is further, but not complete, evidence against this assumption. The majority of cases of cerebral nerve palsies of syphilitic origin and certain cases of cerebral gumma are associated with, or caused by, a meningitis involving the nerve in its course from the brain to its exit in the cranium. Despite the presence of a meningitis, the spinal fluid is, in many cases, negative, either because the meningitis is too localized and gives rise to too small an amount of inflammatory product to change the content of the cerebrospinal fluid, or because, owing to the rather sluggish circulation of this fluid, the contents of the lumbar sac are not involved. Excluding those cases in which convulsions are merely incidental in the course of general paresis, epileptic attacks, and the like, there are syphilitic patients who, having no previous evidence of epileptic tendencies and a negative family history, develop frequent characteristic epileptic convulsions.

There are two types of syphilitic epilepsy. In one type, the spinal fluid presents the characteristic syphilitic reactions. In the other type, the spinal fluid is negative; evidence of central nervous system involvement is shown by the physical signs. A case of Erb's syphilitic spastic paraplegia in which the spinal fluid was negative is cited. Then there are cases in which mental peculiarities occur in syphilitics who show definite evidence of central nervous system syphilis, such as the Argyll Robertson pupil, and who have negative spinal fluids. In another group of cases, despite the absence of signs of symptoms of a neuraxis involvement, the spinal fluid tests are strongly positive.

—R—

#### Clean Inunction Treatment of Syphilis With Mercury

As a result of a preliminary clinical study, H. N. Cole, A. J. Gericke and Torald Sollmann, Cleveland (*Journal A. M. A.*, Dec. 24, 1921), believe we are justified in drawing the following conclusions: In treating syphilis by means of mercurial inunctions, probably the only mercury absorbed is that part of the mercurial ointment which is rubbed into the hair follicles, and entrances of the sebaceous and sweat glands. Hence, all superfluous ointment remaining on the skin may be cleansed off immediately after the inunction without lessening the mercurial effect. From forty-four clinical cases of syphilis treated by this technic, we feel that we have been able to prove this clinically. As a result of our findings we feel that, in the future, mercurial inunctions need not be discarded because of the unpleasant considerations in regard to their use, namely, uncleanness, liability of discovery, and causing of a folliculitis. Mercurial inunctions following the technic that we advise are to be recommended in the treatment of syphilis as a distinct advance in the therapy of this disease.

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### Basal Metabolism

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Basal metabolism in the past one or two years has become a subject of rather widespread interest to medical men. Its introduction into use in practical clinical medicine is a part of the recently awakened interest in the metabolism of the human body and has been accompanied by rapid progress in other lines of study relating to the body chemistry. With this has come the development of more accurate and more simple laboratory methods. Noteworthy among which are the newer methods of blood chemistry, not too cumbersome nor complicated for clinical use for determining the blood carbon dioxide, urea nitrogen, total non-protein nitrogen, creatinin, uric acid and blood sugar. In order to have a better understanding of the subject of basal metabolism, a short resume of the general subject of metabolism will not be amiss.

The metabolism of the body is the sum total of the chemical changes going on within that body, including catabolism, the destructive chemical changes, and anabolism, the constructive chemical changes. The metabolic changes within the body are brought about under the influence of the living cells, and the exact agents producing these changes are unknown, but it is known that in these metabolic changes oxygen is consumed and carbon dioxide is given off. Our metabolism transforms the energy in the foodstuffs into forms suitable for our use in carrying out all the activities of life.

The body metabolism may be measured in two ways: first, by direct calorimetry measuring the quantity of heat produced, and secondly, by indirect calorimetry, measuring the oxygen consumption and carbon dioxide out-

put, from which the heat production may be calculated. The first accurate apparatus for measuring the body metabolism was the respiration calorimeter which measured simultaneously the heat output of the organism and the gaseous exchange. With such apparatus much of the fundamental metabolism work has been done.

Among the fundamental laws of metabolism that help us in understanding the principles of basal metabolism are the following:

First, Lavoisier's work in 1790 proving that the quantity of oxygen consumed and carbon dioxide given off depended on the food intake, the work done, and the temperature of the body; an increase in any of these three, increasing the total of the body metabolism.

Second, Rubner's law of Surface Area: namely, that the heat value of the metabolism of the individual at rest and starvation (meaning as we shall see later under basal metabolism conditions) is proportional to the area of the surface of his body. This law may be extended to include all warm blooded animals, as it has been found that all warm blooded animals, from the field mouse to man, give off very nearly the same amount of heat per square meter of body surface; namely, about 1100 calories per twenty-four hours; thus demonstrating the wonderfully accurate mechanism regulating the metabolism of our organism.

Third, That the metabolism is independent of the rate of pulmonary ventilation: i.e., that the amount of oxygen consumed is dependent on the rate of body metabolism and not upon the amount of oxygen taken into the lungs.

Fourth, That the results of direct and indirect calorimetry check exactly, so that if we are able to measure the oxygen consumption and carbon dioxide output of an individual we have a means of calculating his metabolism.

With the above preliminary statements we may now take up the subject of basal metabolism by which is meant the minimal metabolism; i.e., the minimal heat production of the body. In as much as the metabolism is increased by food, by work, and by fever, basal metabolism is the metabolism with the individual at starvation, at rest, and with a normal temperature. The condition of starvation is fulfilled clinically by making the determination in the morning, the patient having had nothing to eat since six o'clock the previous evening, thus being at least fourteen hours without food. The condition of rest is fulfilled clinically by at least twenty to thirty minutes of quiet rest in the recumbent position before making the test, or preferably by remaining in bed in the morning until the determination is made. In short, the determination is made in the morning before the patient has had his breakfast and while lying in bed.

Various clinical methods have been devised for measuring basal metabolism based upon the fact that the oxygen consumption and the carbon dioxide output is an accurate measurement of metabolism. Further work has also shown that the measurement of the oxygen consumption alone is an accurate clinical measurement, and this has further simplified clinical methods of basal metabolism determination. The following types of apparatus have been used clinically:

First, the gasometer—Haldane apparatus—used at the Mayo clinic. The method is accurate in the hands of trained and skilled workers, but is complicated, requires careful study, is cumbersome, and requires the service of a skilled gas analyst. It may be used successfully in a large laboratory with a trained technician to operate it and obviously will never be of wide clinical use.

Second, the Benedict portable respiration apparatus, devised by Dr. G. F. Benedict, of Boston, in 1918. This apparatus gave us the first method sufficiently simple for widespread clinical use. The technique is relatively simple and with moderate study can be used by the average clinician or technician.

Third, the Jones metabolimeter, devised by Dr. H. M. Jones, of Chicago, in August, 1920.

This apparatus is extremely simple, very portable, and valuable for clinical use.

Fourth, the Sanborn bedside apparatus lately advertised in the *Journal of The American Medical Association* and with which I am not familiar.

The clinical use of basal metabolism determination is made valuable because of the great constancy of a normal basal metabolic rate in practically all normal individuals and in most diseases. As stated before there is a normal definite standard for basal metabolism per unit of body surface. Since basal metabolism is based on the heat production per unit of surface area, it has been necessary to devise an accurate simple method for measuring the body surface. This has been done by Du Bois, who by working with and measuring molded casts of the human body, obtained a table by which the square meters of body surface may be easily calculated from a knowledge of the weight and height of the individual. This table has an average variation of 1.5 per cent for individuals of normal shape and size, and a maximal variation of 5 per cent for individuals of extremely abnormal shape and size. This table will be shown later.

The accuracy and value of Du Bois chart for calculating the square meters of surface area and of the normal standards described above is proven by the fact that in using these methods in calculating the basal metabolism it is found that practically all normal individuals fall within a 10 per cent limit of the normal standard of basal metabolism. It is extremely rare for a normal person to be more than 15 per cent above or below the normal standard. Furthermore only a very few diseases either raise or lower the basal metabolism materially, so that the value of the metabolism determination is greatly enhanced whenever it does vary greatly from the normal.

The basal metabolism is not materially affected in the great majority of all diseases, that is, it will practically always still fall within the limits of normal variation. Pathological readings are obtained in the following diseases:

First, Leukemia which is nearly always as-



sociated with a raised reading, possibly due to the active metabolic changes produced by the great number of white blood cells. Since the condition is early diagnosed from the blood findings the basal metabolism determination is not of clinical value.

Second, Nephritis with edema which may perhaps show pathological readings but more work is needed to establish this.

Third, Disturbance in the function of the thyroid gland. It is only in this condition that basal metabolism is of preeminent value; and because of this value in diagnosis, in prognosis, and in guiding the course of treatment, it will be given separate attention later.

Fourth, Other ductless gland disturbances. The effect of other ductless gland disturbances on basal metabolism is not definitely known because of the insufficient number of determinations made upon such cases and secondly because of the very frequent doubtful character of the diagnosis of such conditions. However there is some evidence to show that there is some change in the basal metabolism in disturbances of the pituitary and adrenal glands.

Because of the great constancy of a normal metabolic rate in nearly all diseases its determination is of great value in the one common condition in which there is a deviation from the normal, namely, in disturbances of the function of the thyroid gland. In hypothyroidism there is a definite decrease of from 20 per cent to 40 per cent below the normal rate, enabling a more certain diagnosis to be made of this condition in which otherwise the correctness of the diagnosis is often in doubt. In total absence of thyroid secretion the basal metabolism runs constantly about 40 per cent below the normal, thus making known one of the substances, namely, the thyroid secretion, which produces the changes of metabolism. What other secretions or substances normally produce the other 60 per cent of the basal metabolism changes are as yet unknown. Of much interest is the work of Kendall, who has isolated the active constituent of the thyroid secretion as a single chemical compound, called thyroxin. For each milligram of this compound injected intravenously in man, there is a raise of 2 per cent in the basal meta-

bolism. A hypersecretion of the thyroid gland is, as we know, always associated with a raised basal metabolism; this increase varying from 20 per cent to 30 per cent above the normal in mild cases, 30 per cent to 60 per cent in cases of moderate severity, and 60 per cent to 120 per cent or even more in severely toxic cases.

This raised basal metabolism is valuable in diagnosis in prognosis, and as a guide to the safest line of treatment. In diagnosis it is of value in differentiating five conditions; namely, simple non-toxic goitre, toxic goitre, nervous exhaustion, myocarditis, and early pulmonary tuberculosis.

In cases of definite enlargement of the thyroid gland, especially in thin, nervous, run-down individuals, it is of prime importance to know whether or not the thyroid enlargement is injuring the system with a hypersecretion or whether its presence is harmful only from the aesthetic and pressure effects. A basal metabolism determination is decisive. With a normal rate we know that such a goitre is doing no harm except from whatever local pressure effects it may be exerting or from the standpoint of personal appearance.

A rate of 20 per cent or more above normal is definitely indicative of a hypersecretion with damage to the entire body, especially the heart and nervous system and will require different treatment than the non-toxic goitre. Similar to the above use is its value in differentiating those cases of nervous exhaustion due primarily to an unstable nervous system with their various complaints of weakness, exhaustion, cardiac palpitation, sweating of the hands and feet, with perhaps a tremor from those cases having the above type of symptoms due to a mild hyperthyroidism. Here again the metabolic rate is of determining value. Thirdly, its diagnostic value lies in differentiating those cases of tachycardia due to a toxic myocarditis from a hyperthyroidism. A resume of such a case will be given later. Similarly it may be of use in differentiating an early pulmonary tuberculosis from an early hyperthyroidism.

One may ask what is the use of the basal metabolism determination when the diagnosis of a hyperthyroidism is so easily made with the presence of the marked symptoms of

tremor, tachycardia, thyroid enlargement, and exophthalmos. In such cases the diagnosis is indeed easily made but we find many cases of definite hyperthyroidism with one or more or all of the above cardinal symptoms absent or of only slight intensity. In a great many cases the exophthalmos is absent and the tremor not characteristic, and very often but little enlargement of the gland is present. The most persistent symptom is the tachycardia and perhaps it is not going to far to say that the two cardinal symptoms of a hyperthyroidism are a tachycardia and a raised metabolic rate.

The basal metabolic rate is also of great value in determining the most advisable course of treatment of toxic goitres. This test like every other valuable laboratory test can never replace the careful clinical study of the case—this in medicine will practically always be foremost as it has from earliest times, but more and more we are getting valuable laboratory aids which are always of greatest value to the practitioner who can interpret them in the light of the clinical findings of the case. In a case of toxic goitre a basal metabolism of 20 per cent to 40 per cent above the normal is indicative of a mild or very moderate degree of hyperthyroidism, in which case a primary thyroidectomy may usually be done with relative safety. A rate of 40 per cent to 60 per cent above the normal will usually mean a moderately severe degree of toxicity and practically always a preliminary polar ligation is much safer followed in three to five weeks by a thyroidectomy.

After the ligation the metabolic rate may fall markedly in the following few weeks and the patient feel so much improved that he does not want the further operation. However practically always a thyroidectomy should be performed in such cases, as a collateral circulation is gradually set up and the former degree of toxicity returns, necessitating further operative treatment under conditions not nearly so favorable as those which existed in the period of improvement three to eight weeks after the ligation. A rate about 60 per cent above the normal means a severely toxic goitre and all treatment must be extremely cautious, such as preliminary hospital rest,

ligation of one pole under local anesthesia, and later of the second pole, usually with improvement with each procedure so that after a time the toxemia is reduced to a point where partial removal of the gland may be attempted with a fair degree of safety.

The following four case records are given in brief in an attempt to bring out the value of basal metabolism determination in certain cases.

Case 1. Mrs. F. N.—Housewife—age 45 years. First seen in June, 1919, at which time the patient complained of a persistent cough and had definite findings of an early pulmonary tuberculosis of the right apex. She then went to Colorado and improved, but at that time she began to take calcidin tablets for the cough. She was next seen in May, 1920, entering the hospital with a marked edema of both legs, shortness of breath on exertion and marked cardiac enlargement, pulse rate 100 to 120. Her previous lung findings had disappeared. After several days observation the obvious diagnosis was made of a chronic myocarditis with cardiac decompensation. After several more days observation the idea occurred that there might be a hyperthyroidism behind the whole condition; the patient was slightly nervous and had a fine tremor of the hands, no definite eye signs, and it was not possible from the clinical picture to make a definite diagnosis of hyperthyroidism. A basal metabolic rate was run and found to be 164 per cent, 64 per cent above the normal; on May 9, after one week's rest in bed a second determination gave 162 per cent. The patient was then sent home under absolute rest and sodium bromide, returning with a basal metabolic rate of 157 per cent on June 19th. June 21st, a right polar ligation was performed, the basal metabolic rate on July 2nd was 146 per cent. She then returned home with marked improvement. Basal metabolic rate October 5, 135 per cent. Partial thyroidectomy two days later on October 7. Basal metabolic rate October 19, 122 per cent. December 12, 116 per cent.

This case illustrates the diagnostic value of metabolism determinations and its value in guiding the course of treatment. It also illustrates the value of primary polar ligation



in all cases when the safety of a thyroidectomy is questionable.

Case 2. Miss G.—Spinster—aged 42 years. Entered the hospital with complaints of tachycardia, weakness, dizziness, tremor and nervousness. She had a slight fine tremor, slight enlargement of the thyroid and a definite tachycardia on the slightest exertion. A definite enlargement of the heart was present, with a slight systolic murmur at the apex. After several days' observation the most probable clinical diagnosis was a moderate thyrotoxicosis with a toxic myocarditis. Her basal metabolic rate was 100 per cent, exactly normal. The further course of the case, watched over a period of six months, left no doubt that this was primarily a myocardial insufficiency without any thyrotoxicosis. The basal metabolic rate enabled a correct diagnosis to be made early in the observation of the case.

Case 3. Mrs. H.—Housewife—age 35 years. Entered the hospital with the complaints of nervousness and weakness. Heart rate 90 to 120. After a careful office examination one of our excellent clinicians made the diagnosis of a thyrotoxicosis and sent the patient to the hospital for a basal metabolism determination. This was done and found to be 101 per cent. The following day urine examination revealed a marked albuminuria, and the correct diagnosis of chronic nephritis was made.

Case 4. Miss M. J.—College girl—age 20 years. This patient had been in the care of several excellent clinicians for eight months and the diagnosis made of a myocarditis following a sinus infection. The patient had a tachycardia of 100 to 120, no eye symptoms, no enlargement of the thyroid, and but little tremor. Finally a basal metabolism determination was made and a rate of 170 per cent found. It is of interest in this case with such a marked thyrotoxicosis the diagnosis could not be made clinically with any degree of certainty. Under medical management for several months the rate at various determinations was as follows: 170 per cent—180 per cent—160 per cent—. Bilateral ligation of the superior thyroid arteries under local anaesthesia resulted in a marked clinical improvement and a drop of the basal metabolic rate to 128 per

cent. Unfortunately this was not followed by a thyroidectomy and after about two months with the establishment of a collateral circulation the toxemia again increased, with a basal metabolic rate varying between 150 per cent to 165 per cent and the patient was then in no condition for a thyroidectomy. At another operation sutures were whipped through the gland, followed by some improvement. With the further course of this case I am not familiar. The case brings out several interesting facts, namely, the absence of all the cardinal symptoms of Graves' disease except tachycardia. The diagnostic value of basal metabolism determination, its value in guiding the course of treatment, and lastly the danger in not following a primary ligation by partial thyroidectomy in the period of improvement.

In conclusion it is safe to state that in a basal metabolism determination we have another valuable and reliable laboratory test suitable for all practitioners who care to avail themselves of its use.

—R—

### Some Characters and Events in the Practice of Medicine

O. R. BRITAIN, M.D., Salina

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Far back in the dim past, where all is shrouded in mystery and doubt, where history does not reach except through tradition, it is said that a son was born of Apollo, the god of archery, medicine and music, and the nymph, Coronis.

This offspring bore the name of Aesculapius, and in later years became deified as the god of medicine.

The same mythological tradition informs us that he was instructed in the art of healing by one Chiron, said to be a Centaur, a being part man and part horse.

The tradition, however, fails to give any information as to how the Centaur became possessed of the knowledge he imparted to Aesculapius, nor does it enlighten us as to which part of the combination of man and horse should be ascribed the greater glory.

It is fair to presume, however, that the fore part, man, being possessed of the intellectual



faculties advanced a theory, and that the rear part, horse, at once interposed a vigorous kick, for no doubt it was as necessary in those early days, as it is today, to present objections to a theory advanced in order that the theorist might be held to a substantial and practical basis.

Our ancient friend and progenitor, Aesculapius, became skillful in the art of healing; so much so in fact, that he by our art restored Hyppolytus to life after he had been torn to pieces by his own horses.

This so enraged Jupiter that he caused the death of Aesculapius by means of a thunder-bolt.

Two reasons are given for this action on the part of Jupiter: first that he feared that man might conquer death, and second, that Hades complained that his kingdom might be left desolate.

This act also evidences the fact that the good that may be done is not always appreciated; and further that the path of the physician was not strewn with roses in those ancient days any more than it is at the present time.

The fame of the god of medicine ever lived after him and numerous statues were erected to his memory, one hand of which held a knotted stick entwined by a serpent.

Some believe that this is the source of the emblem, the staff and serpent, adopted by the profession, though others believe that the emblem is symbolic of the time when Moses lifted up the serpent in the wilderness, that his followers might be healed from the bites of the venomous reptiles that were among them.

The animals held sacred to the god of medicine were the cock, raven, and the goat. The symbolism of each is as follows: The cock symbolizes vigilance, which quality physicians should possess. The cock was also used as a sacrifice to the Deity, as Socrates ordered, after drinking the cup of poison, by saying: "We owe a cock to Aesculapius; give it without delay." This was a token that he did not fear death, but rather looked upon it as a cure and convalescence. The raven being supposed to have by instinct the faculty of

prediction, signifies that the physician should possess this power as applied to disease.

The goat as it always has been distinguished for its lubricity, probably represents the attribute directed to the propagation of organized being.

Following the death of Aesculapius by an overdose of electricity, the history of the healing art still remained clouded until we hear of it again in the poems of Homer, who lived about 800 or 900 years B. C.

Therein are found such references to medicine that no doubt can exist but that in the days of Homer a distinct and organized profession existed, and that a system of treatment had been inaugurated.

The Homeric poems ascribe two sons to Aesculapius, Machaon and Podalirious, who were also adepts in the art and it is said that the task of Machaon was more especially to heal injuries, while Podalirious had the gift of recognizing what was not visible to the eye, and tending what could not be healed. Thus in a crude way was a distinction made between the practice of medicine and that of surgery.

After Homer, we have as yet no medical records or literature except such as can be drawn from the writings of non-medical writers, until we reach the days of Hippocrates who was born 467 years B. C. of a family of priest physicians, and from whom emanate the medical art as we now practice it, and the character of the physician as we now understand it. The life and works of Hippocrates, considering the period in which he lived, and his environments, were truly remarkable. He was a close observer, an extensive writer, and many of his descriptions of disease conditions have not been improved upon at the present time.

He is the parent, not of medicine alone, but of the inductive method as applicable to all branches of natural science. It is a proud claim that the method found its first application in the science of medicine. His philosophical comments upon the physician and the practice of the art, are as fitting now as they were at the time when they were written so long ago.

In line of advancement the Alexandrian

School followed the period of Hippocrates. The outstanding figure of this time was Galen who lived 131 to 201 A. D. His teachings were based upon those of Hippocrates for whom he had high admiration.

The study of anatomy made special advancement in this school at Alexandria and Galen taught anatomy from the human skeleton and from the bodies of animals.

It is interesting to note that far back in Memphis, before the pyramids were completed, and again in old Damascus in the year 1000 A. D. there was sold a popular remedy, the active ingredient of which was aloes. This was the same article that the Roman physician of Caesar's time sold as the secret formula used by the priests of Aesculapius. Aloes is still doing duty as an ingredient of some of the popular remedies of our time.

Superstition walked side by side with the advancement of true medical science and this 15th century drawing illustrates the method of the removal of a curative stone from the head of a toad. Shakespeare refers to this when he says: "Sweet are the uses of adversity, which, like a toad, ugly and venomous, yet wears a precious jewel in its head."

Compare this drawing with the modern method of head surgery on the human being.

Among those who contributed most to make the 16th century a glorious one, raising himself from the lowest walks of life to the attainment of the highest professional honors, is Ambrose Pare whose name will never die while the art of surgery is taught. A large part of his training came through military service, and it was while engaged in this service that he discarded the use of boiling oil and substituted ligatures for the control of hemorrhage in wounds.

Following soon after this in the 17th century came the discovery of the circulation of the blood by Harvey. Other earlier observers, notably Galen conceived in a general way that the veins and arteries were filled with blood, and approached so near the truth of the general circulation without finding it. It seems strange that the theory of the circulation that seems to us today to be so plain and self-evident, should meet so much opposition at the time it was advanced.

Harvey met the opposition of the leading authorities of the time, and it required thirty years to convince them of the truth.

The capillary connection between the two vascular systems was best shown by Ruysch, professor at Amsterdam. An incident occurs here that sounds so much like present day disasters that I relate it.

Peter the Great secured some specimens of Professor Ruysch at an expense of \$75,000 and was having them brought into Russia. The Russians who were transporting the collection discovered that the specimens were preserved in alcohol, and drank the alcohol, and many of the specimens were ruined.

To the most prominent discoveries of recent times I only make reference; not because of lesser importance, but because we are all more or less familiar with them. Among them I mention the use of ether by W. G. T. Morton in 1846. Further recognition and honor has come to him recently in the election of his name to a place in the Hall of Fame during the past few months.

The adoption of asepsis as taught by Lord Lister, Koch and others in the seventies, and which has revolutionized the treatment of wounds and the practice of surgery; and the assistance of the x-ray in diagnosis and treatment as developed in the last two decades.

It is easy to follow the advancement of medicine, step by step, from the earliest times, through the centuries to the present day; surrounded by superstition in the beginning and approaching an exact science in its later days. To see this transformation take place with a people in a few years instead of centuries, we have but to observe the case of the Indian tribes of our own continent, who now have accessible the medical service of the modern physician, but who only a few years ago must rely on the ignorant and superstitious medicine man.

I relate an incident which occurred on the Fort Riley Reservation in 1855.

This is taken from the manuscript of Capt. James R. McClure, an attorney stationed there in the service of the government, at that time. He says:

"I had brought with me a number of law books: they had made quite a display in the



little cabin and excited the curiosity of the Indians. They would point to the books with wonder depicted in their faces, converse among themselves, evidently attempting to find out for what purpose the books were used and for what object I had brought them to this out of the way place. I finally discovered that they had settled the question in their own minds and put me down as a medicine man.

After reflection I concluded it was best to allow them to remain under this delusion, as it would secure their respect and give me a standing among them I could not otherwise obtain. I found it was a dangerous experiment to administer medicine to an Indian; if the remedy had a bad effect it settled the fate of the doctor; nothing could convince them that he had not purposely given it to make them sick, and with the intent to kill. They had great faith in medicine men, and believed they possessed supernatural power and could either kill or cure. They were looked upon as superior beings and commanded the respect and fear of the whole tribe. I also realized the danger I ran in attempting to play medicine man, but concluded to take the risk when one day the Indian chief told me one of his wives was very sick and that they had no medicine man with them, and he had therefore called on me to cure her.

"With many misgivings I requested him to bring his squaw to my house and I would diagnose her case and see what I could do for her. She was brought in with a number of other squaws. I carefully felt of her pulse, examined her tongue, took down several law books, and pretended to master the cause of her trouble. I then, after going alone in another place, prepared several doses, consisting of flour, sugar, salt and pepper, wrapped them in small papers, breathed upon them, repeated in a slow and solemn voice some latin phrases, and then directed the chief to give one of the powders in the morning another at noon and one at sundown.

"I awaited the result of my prescription with a good deal of anxiety and apprehension, but fortunately the old squaw got well and the whole credit of her cure was attributed

to me and my reputation as a medicine man was fully established.

"I was called upon by several other Indians to doctor them but I feared to extend my practice and experiment too often, for fear I would lose my reputation and incur their anger and resentment by having a dead Indian on my hands; so I shook my head and gave them to understand that it cost a heap of money to purchase my books, acquire a medical education, and procure medicine, and I could not afford to go into general practice without pay."

This statement is no less true now than it was in 1855.

Today, on the very site where, three score years ago, Captain McClure gave the Indian squaw the powders of flour and pepper, there stands the modern hospital surrounded by all those features that characterize the effort to make modern life pleasant and acceptable.

Dr. Roswell Park in his history of medicine, referring to those who have done much to bring medicine to its present status, and especially to men such as Morton and Lister, makes this observation:

"What an everlasting disgrace it is that, while to the great murderers of mankind, men like Napoleon in modern times and his counterparts in all times, the world ever does honor, erects imposing monuments and writes volumes of flattering histories, the men to whom the world is so vastly more indebted for all that pertains to life and comfort are scarcely ever mentioned save in medical history, while the world at large is even ignorant of their names."

To the glory of our profession be it said that its advancement as a science and an art has been marked by active progress.

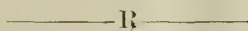
As expressed by Moynihan: "In every generation there are a chosen happy few who shed a special luster upon it by their character, their scientific attainments, or the great glory of their record of service to their fellow men. As we look backward upon the long history of the science and art of medicine, we seem to see a great procession of famous and heroic figures, each one standing not only as a witness of his own authentic achievements, but also as a symbol of the traditions, ideals and



aims of the age which he adorns. The procession is sometimes thinly stretched out, or even rudely broken here and there; but in happier ages it is thronged by an eager and exultant crowd. In medicine the whole pageant is as noble and splendid as in any of the sciences or arts, and it reveals the collective and cotinuous genius of a band of men inspired by the loftiest purpose, and lavish in labor and sacrifice for the welfare of mankind.

They have come throughout the ages from every land. They now belong not to one country, but to every country, for they are the common possession and the pride of all the world. They have lost their nationality in death."

In the close application to present day problems let us not forget those fathers of medicine whose labors in earlier times were not in vain.



## The Doctor and the Hospital

J. T. AXTELL, M.D., Newton

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The hospital is as necessary to the doctor as the doctor is to the hospital. A hospital depends largely for its patronage on the skill and the reputation of its staff. Many prominent hospitals today would be almost unknown were it not for the fame of some prominent surgeon or physician. For instance, who knows anything of Lakeside Hospital, of Cleveland, Ohio, except as associated with Dr. Crile, and who thinks of the Lankenau Hospital, of Philadelphia, unless he first thinks of Deaver? St. Mary's Hospital, of Rochester, Minn., would scarcely be known except for its staff, and even Evergreen Hospital, of Leavenworth, Kan., is thought of only in connection with our old friend, Dr. Goddard. Most of our small local hospitals would scarcely exist without the efforts of our local physicians.

Privately owned and conducted hospitals are fast giving way to church and municipally owned hospitals. The last year has seen many changes in this respect in our state. At present there are 89 hospitals in the state of Kan-

sas, and many more are now in the process of construction. These 89 hospitals have a total of 3,802 beds, 57 of the hospitals having 25 or more beds, and 32 of them having less than 25 beds. There are, however, sixty counties in Kansas without a hospital.

All the hospitals are with difficulty self-supporting and a very large number are not self-supporting. As the poor people naturally drift to the hospitals it becomes a burden for the hospital and hospital doctor alike. It is not right that doctors should bear all the burden of caring for the indigent sick. It is equally the duty of every other man and taxpayer to bear his share of the burden. It is up to the doctors and our local medical societies to educate the people that the only fair division is for the taxpayer to pay at least the cost of caring for the poor who can not pay their bills.

For years we have all kept splendid financial records. We have always been careful to know just what it cost to run the hospital, just what it cost per capita per hospital day, and we could tell to a cent where all the money was spent. We have been particular to have the best equipment in our kitchens and diet kitchens that we might conserve help and do our hospital work in the most economical manner possible. We have not all had as careful records of diagnosis, of treatment and of results. If we are to do the best work, we must have better hospital records.

The standardization of hospitals and grading into different classes is, in my opinion, the greatest work undertaken by physicians since the grading and weeding out of medical schools was accomplished, and the one is as much needed as the other was. Yet practically the whole responsibility of the grade of a hospital depends upon its staff.

Upon the staff devolves the making and keeping of records. A careful personal history is essential. A prominent surgeon has said that eighty per cent of the diagnosis of a case depends upon the history. This is true only if the history is properly taken, and it is indeed a fine art to be able to get an accurate and truthful history. Patients are ignorant and prejudiced. Their preconceived ideas cover the real truths in the case, and it

is only by much time and patience and skill that an exact past history can be obtained. This is not a job for a nurse or even an interne, unless especiall trained. No physician has taken so many records but that he may improve by practice.

A system here is of much benefit. It is usually well to let the patient get off his long-winded, rambling and rehearsed story before you begin to write anything. After he has unburdened himself in this manner he will answer your questions more intelligently. You should not, however, confine yourself to the line of history prominent in the patient's mind. You will often find he has other ailments besides the one for which he has come to you. It is important that you should know of them.

The patient's age, occupation, environment, family history and past history from childhood, have so much bearing on the case that they must all be carefully noted. Former operations and hospital experience are quite important. The writer has often found it well to abruptly ask the patient, "What is the one thing of which you complain most?" or "What is the one thing that oftenest disturbs you and makes you know you are not well?" In this way, you can often get at the chief complaint. The weight of a patient and any recent gain or loss are important records. Before the record is completed, it is well to begin with the head and ask questions about every part of the body from the head to the feet.

The physical examination, especially of a woman, is best made in a hospital bed. The emptying of the bowels, rectum and bladder, preparatory to examination are best attended to by a hospital nurse. The relaxation of the patient is more complete and the nervous excitement is much less when the patient has been quietly lying in bed for a time. For a patient to remove her corset and get on a doctor's chair or table in a strange office usually results in a very unsatisfactory examination. The physical examination must now be carefully recorded. If possible, it is well that the examination of the urine, the blood pressure and blood count or other laboratory work should have been done before

the doctor comes for his physical examination. He should then be able to make his preliminary diagnosis, which should be written on the chart at the time.

It is our rule to have a *progress record* on the back of each *personal history* record of a patient that remains in the hospital. A separate sheet of paper is the more common method. This progress record is marked each day by the doctor on his daily rounds and in his own handwriting he notes the progress of the case, any complications, consultations, change in diagnosis, presence of any infection, and when the patient is discharged from the hospital he notes the condition of the patient.

A *patient's register*, giving the name and address, day entered and day discharged, number of days in hospital, diagnosis, treatment and result, is a very important hospital record. From this register many of our hospital statistics may be compiled.

Taken altogether, it is probable that the set of blanks recommended by the College of Surgeons cannot be much improved. It should be the duty of some competent person connected with the hospital to see that all blanks are properly filled out before filing.

A good laboratory is essential to good work. No busy practitioner makes a good laboratory technician. It requires some one who can give his whole time to this work. Women, properly educated and trained, seem to fill this place peculiarly well, especially in smaller towns where there is not sufficient material for a physician to devote all of his time to the work. Where a hospital is not too large the same laboratory technician may also have charge of the x-ray department. One of the questions to be decided is—shall the laboratory and x-ray equipment belong to the doctors or to the hospital? Unless there is a well established group of doctors working together in perfect harmony, it will be better for the hospital to own the laboratory and x-ray equipment. Every pathological specimen from the operating room should go through the laboratory and a record of the examination be filed with the history of the case.

More autopsies than are usually made will be conducive to more accurate diagnosis. In

every case where an autopsy is made a careful record should be filed.

An index record of operations should be kept that will show at any time how many operations of a certain kind are being performed. This will often reveal the character of work being done in any institution. Too many currettages or too many appendectomies, compared with the number of patients and operations performed, might at least be suggestive.

A *follow-up* or *end result* system is equally necessary. This may very well be done by having the hospital secretary go over each day the records of the operations of one year ago that date and write such patients as have not reported during the year to make a report of their condition since operation and this report should be copied and filed.

The question of who shall constitute the hospital staff is very important. A closed or limited staff seems to me desirable and even necessary in most localities. Even a good and reputable physician, if he does not keep good records, will bring discredit upon a hospital, and may completely destroy its standing. Certainly a hospital, to preserve its reputation and standing, must have some control of its doctors. The members of the staff are usually chosen by the Board of Directors.

To a doctor used to the advantages of a good hospital it would seem almost impossible to get along without one. That good work is often done by doctors in small places without hospital advantages only reflects credit on the doctor. He would do much better work if more conveniently situated.

The association of doctors into groups for team work or even working together on the staff of a hospital stimulates each doctor to do better work. It keeps one out of ruts and routine work and favors the division into specialties.

Meetings of the staff monthly or oftener in which the records of the previous month are read and discussed are essential to good work. How many deaths have there been during the month? How many were medical cases? How many surgical? What was the course of each? How many autopsies were held? How many institutional infections,

medical, surgical and obstetrical, have there been? How many times does the preliminary diagnosis agree with the final diagnosis? How many have an additional final diagnosis? In how many cases was no diagnosis decided? These and other questions will bring out most illuminating results, and plenty of material for a good evening's discussion.

The relationship of the doctor and the hospital is like that of man and wife. Each is essential to the other. Longfellow says:

"As unto the bow the cord is,

So unto the man is woman,

Though she bends him, she obeys him,

Though she draws him, yet she follows,

Useless each without the other!"

—R—

### Fables For The Doctor

RENNIG ADE

Once upon a time a Kansas doctor contracted a moderately severe attack of Golfitis, which ran along for a time neglected, and later became a well marked case of Golfobia, one of the diagnostic symptoms of the latter being a tendency to turn around and attempt to bite oneself in the calf upon missing an eight-inch "putt."

To those of the profession who have not played the "cannie" game it may be well to explain the terms used, as phonetically they suggest nothing. Their origin is still in question, but the author is supposed to have been a prehistoric Scotchman recovering from a two weeks' debauch on fermented porridge. The game was brought across the water and by some eugenic contortion became crossed with two-old-cate and was called "shimmy."

I can now see the old Does "pricking up their ears as the old familiar game is mentioned, for who among you has not been hit under the ear by an empty sardine can propelled by the lusty club of a boyhood chum?

But to get back to golf. Contrary to the general idea of the uninitiated, golf balls are not the product of tree, vine, or animal, but a small, round, perverse, rubber —— designed by man, that per-ist in lying still or rolling sidewise when it should be cleaving the ambient atmosphere two hundred and fifty yards in front of an admiring friend.



Golf balls are placed on a "tee" before being attacked. A tee is a small object made of rubber, sand, gold watch, cow-chip or any other material, depending upon the financial standing of the tee-he. (In the western towns of the state it sometimes requires an active herd of about one hundred head to keep the course going winter and summer.) The little rubber ——— is placed on this tee, an ill-shaped utensil called a driver is selected, and the "stance" is taken. The stance is the attitude assumed by the attacking party just before swinging at the little rubber ———. Golf professionals lay great stress on the stance. A golf player without a stance is on a par with a baseball pitcher or an obstetrician without a delivery.

The stance should be both physical and mental. In other words, the golfer thus communes with himself: "Are my feet sufficiently separated? Does the tee form an isosceles triangle, the base of which is a line leading from my ensiform cartilage to a point midway between my left ankle and my vest pocket? Am I relaxed on my inside and cool on my skin-side? Am I at ease with the world, or do I covet my neighbor's ass or his maid-servant? Do I have my eye on the little rubber ———?" All of these being answered satisfactorily, the ganglionic centers signal back "all set."

It is zero hour. Strong breaths are held. Slowly the deadly driver is drawn back, and with a murderous swish describes a mighty curve—missing the object by only a scant four inches. The next effort ruins a pasture "tee"—and the little ——— treckles off to one side for a loss of three yards on the second down.

A "brassie" is now brought out. A brassie is a driver half-soled with a piece of metal, and will often last a beginner on a rocky course two or three games.

Here it might be well to mention that the selection of clubs, next to the stance, is the vital factor. While many a man this day selects his partner for life without even a glimpse of her ears—although fashion has decreed that all other anatomical characteristics shall be most advantageously displayed—he would not think of selecting a brassie or niblick without the aid of wise counsel. A professional who gets a rake-off of sixty-five per

cent is a competent advisor, but a club stamped MacFadden, MacBeth, or McDuff is a fairly safe purchase. Old Scotch is also popular with most golfists.

Upon approaching a "green"—but I must explain: A "green" is a circular area from which has been removed all large rocks, trees, etc., in fact everything but four heavy-set ladies and two elderly men who chat pleasantly while you wait fifty yards away for the coast to clear. In the center of the green is a small, animated hole which dodges right and left as the little ——— rolls toward it. This hole is in the same degenerate class as the rubber ball, and should not be discussed in front of children.

The "putter," or herd-stick, is used to guide the ball across the green into the hole. This is best accomplished, if your opponent is some distance away and not looking, by lightly tapping the ball first on one side and then on the other, thus keeping it rolling and losing no strokes.

We now come to the "mashie" a spasmodic, demoniacal, temperamental thing of iron, that has been the cause of many back-slidings. After a long drive of seventy-five or eighty yards, and the world again seeming bright, we lie within twenty yards of the green. Enter the mashie—We will gently chop, raise the ball with a graceful curve into the air, and it will fall on the green with a clever back-spin, and crawl around until it finds the little hole, etc. Our first chop falls a little short, and does no damage beyond throwing some dirt in our eyes. The second, delivered identically the same, lands in a vital spot—and the ball leaps out joyously for a nice clean drive of sixty yards!

But enough of the mashie. I dare not trust myself to speak of it. Suffice to say, one of my best and quietest friends bit the handle off one last Sunday.

The last stick I will mention is the "caddy." A caddy is the biped that follows you around, and stands on the last ball until you play another. Some of them use handkerchiefs, some the caddy bag, and some snuffle. They are usually good cussers, and therefore come in handy when one vocabulary alone fails. A great many fathers of caddies are bootleggers.

and their mothers support the families with the assistance of the poor but honest caddy who brings home all the lost balls, and an occasional stick that falls from some bag.

The object of the game is to drive the ball around the course, the one completing the nine or eighteen holes in the least number of strokes winning the match. As a rule the winner will acknowledge it and mention it freely for several days.

The ethics are such that no one is supposed to interfere in any way while an opponent is playing.

The kicking of dust in a player's eyes, or jiggling his stick when he is about to shoot is bad form, and should never be done unless the score is close or in playing with a very small man.

Kicking your ball toward a green is extremely risky, although it may be absent-mindedly shuffled along between the feet if the opponent is some distance away.

Never drive a ball directly at a large heavy set man, as many players are temperamental.

In playing with ladies—don't.

Should you feel so tempted, go down to the creek and hire someone to throw sticks in while you retrieve them for a couple of hours. You will thus get the thrill and exercise and avoid the responsibility.

Never go out to play before daylight, nor stay out after dark if it is snowing or raining hard.

Never question an opponent's score. It is much more golfish to consider every man honorable. However, to be on the safe side you may deduct six or eight from your own score before turning it in.

When finding a ball plainly marked with another player's name, it may be neatly appropriated by carelessly dropping your hat alongside it, meanwhile whistling some popular air. It should be repainted and your own name substituted before putting it in play again.

The Doctor's symptoms recently abated somewhat during a blizzard that lasted three days, but broke out afresh when the sun came out. Treatment was abandoned as useless, and friends spoke in a low voice when mentioning his name. It was noticed, however,

that the pouches about his jawl were disappearing, the perfect forty-four waist-line had gotten out of the way so he could lace his shoes, and his eye had the clearness and sparkle of health.

Moral: If you get bit, you're a goner.

—R—

## Reflections

BY THE PRODIGAL

—  
SOUNDS FAMILIAR

Some forty years ago Dr. Willard Parker, at that time a leading surgeon in New York City, after studying 397 cases of cancer of the breast said: "Cancer is to a great degree one of the final results of a long continued course of errors in diet, and a strict dietetic regimen is, therefore, a chief factor in the treatment, preventive and curative."

Dr. William J. Mayo in his president's address before the American Surgical Association (1921) said: "Cancer of the stomach forms nearly one-third of all cancers of the human body. So far as I know this is not true of the lower animals, nor of uncivilized man. Is it not possible, therefore, that there is something in the habits of civilized man, in the cooking or other preparations of his food, which acts to produce the precancerous condition. Within the last hundred years four times as much meat has been eaten as before that time. If flesh foods are not fully broken up, decomposition results and active poisons are thrown into an organ not intended for their reception, and which has not had time to adapt itself to the new function. Where cancer in the human is frequent, a close study of the habits of civilized man, as contrasted with primitive races and lower animals, where similar lesions are conspicuously rare, may be of value, and finally, the prophylaxis of cancer depends, first on a change in those cancer producing habits, and second, on the early removal of all precancerous lesions and sources of chronic irritation."

The inference is that cancer is on the increase. That it is caused by an irritant. That the irritant is either physical or chemical. That man is what he eats: and that what he eats and how he eats and when he eats and

how much he eats and the character of the food he eats has to do with his physical well being. That he is not as rational in his intake of food as the lower animals. That excessive meat eating by man is injurious to him.

The frequency of cancer in man is simmering down to his dietary. The simplicity of a thing is the reason it is overlooked often in diagnosis. The stomach is the most abused organ of the body. Overloading the stomach with meat is but one factor of its irritation. The excessive use of ice water and chunks of ice dumped into the stomach; ice cream and ices; half masticated food; hot coffee, tea, soups and chocolate; coca cola; sodas; sythetical soda fountain drinks; excessive amount of candies and sweets; and other irritants too tedious to mention make up the list of abuses to which the stomach is subject, and knowingly. It causes surprise that it endures so much abuse and continues to function at all. If a man treated his friends with the same consideration he does his stomach they would kill him. The conclusion is that the cause of cancer is so simple in its diagnosis that it has been overlooked.

And that, altogether in language more or less veiled, Parker and Mayo begin to see the light and the dawn is breaking on the profession as a whole, as to the cause, cure and prevention of cancer—is in the dietary.

#### THE WAY OUT?

In a letter to the J.A.M.A. on "Group Practice, Diagnosis and Pay Clinics" the doctor suggests that, "Methods must be devised to protect the rights of the general practitioner (the specialists will look out for themselves)." The way out is to make the general practitioner a specialist.

In group practice there are enough specialties to fit out any sized group that can be organized for practical work in city or country. Specialists in group practice could gradually absorb the general practitioners without a jolt in the readjustment. "The greatest good to the greatest number" is an axiom in law and applies to the practice of medicine. However, there is enough uncertainty in the scheme to create a shadow of doubt in the mind of the thoughtful medical man, not only as to

the expediency, but the final good results or benefits in group practice to the medical profession and the sick if group practice should become so attenuated.

In the great manufacturing plants the principle of specialism is practiced by each man learning to make one thing. By so doing he learns to make one part of the machine better than any other man in the shop. But he can make nothing else; or not well enough to be counted.

Hence by his specializing he is limited in his endeavor by the restriction. He would not know what to do in case the machine, of which he made only part, should get out of order, unless it was the part he made. And there being so many parts of the machine he would be of limited use in putting it in running order.

True the doctor does not make the human machine that he is to readjust and keep in order; but he must know every part in the make up of the human body and the relation and adjustment of each part to the other and the organism as a whole to keep it in span and spick running order.

The tendency of specialism is toward concentration. To focus all the power and enough of the mind on one point—one organ of the body, the eye for example. This concentration limits and narrows the view so that the field of vision takes no note of the shadow of danger that is more obscure and would have been seen and avoided if a more general knowledge had been cultivated.

Some of the conclusions are, that a tendency to extremes is the normal condition of the human mind. That reactions occur, occasionally, but never go back, beyond or even to the starting point, hence in this is progress.

That specialists are essential to progress. When the all around medical man is eliminated (never) specialism will fall and chaos will reign. That it is the duty of the specialist to keep himself posted by devoting at least one-fourth of his study time to general medicine that he may have an inkling of what he ought to know for the safety of his patient and that there will be always a place for the all around practitioner if he keeps in trim.



## BELL MEMORIAL HOSPITAL CLINICS

## Clinic of A. L. Skoog, M.D.

## MORPHINISM AND PSYCHONEUROSIS

There are two cases to be presented, of much interest to all medical men on account of the possibility of a morphine habituation being established in a susceptible individual. Lack of time prevents a complete analysis of all the data accumulated during the residence in Bell Memorial Hospital of the two patients, the first remaining under treatment seven weeks and the last ten weeks. Each case has enough for a single clinic, but the two studied side by side are much more interesting and instructive.

Case I: Admitted November 3rd, 1921. Deals with a stenographer, female, age 24, and single.

*Chief Complaint*—Fainting spells and headache.

*Present Illness*—Had first fainting spell five months ago at 10 a. m., while working. She was said to be unconscious for five hours, except when aroused for a moment, and afterwards was in bed for a few days on account of weakness, and "slight afternoon fever." The second fainting spell came five weeks ago, and since then she has had 15 or 20, the last one three days ago. While in an attack the legs and arms jerk and eyes are "set." If standing she falls.

For the past year she has had a continuous occipital headache. Is constipated. Menses have been irregular since June. Sleeps poorly. Complains of frequent vomiting spells and says she has vomited blood.

*Past History*—She has had several slight attacks in the region of the appendix. Right ear has discharged at intervals since her fourth year.

*Family History*—No history of nervous and mental disorders in family.

*Examination*—Hearing slightly reduced in right ear. Tonsils infected. Several bad teeth. Thyroid slightly palpable. Eyes react normally. Tendon reflexes slightly exaggerated. Neurologically negative otherwise. No motor or sensory palsies. Urine negative. Blood, R.B.C. 4,300,000, Hb. 75%, Leucocytes 7100.

Clotting time  $2\frac{1}{2}$  minutes. Polys 65, L. mono. 2, L. lymph. 8, S. lymph. 23, Trans. 1, Eosinophile 1. November 5th, 1921, apparently in a deep stupor, but aroused by pressure on supraorbital nerve. November 6th, entire right side rigid, while left is lax. November 7th, apparently unconscious, and very rigid. Relieved promptly by apomorphine grain  $\frac{1}{4}$ . November 18th, gait and motor power good. Sensory negative. Upper tendon reflexes weak, equal right and left, except right biceps brisker than left. Right patellar brisker than left. Right achilles brisker than left. Pupils react fairly well to light and accommodation. Discs normal. Head percussion-note normal. Headaches made worse by compression of carotids. November 25th, psychological test: (Stanford revision of Binet-Simon). Intelligence quotient, 106. Patient has had no fainting attacks for 6 weeks. Headaches still complained of, but not of the same degree.

Case II: Admitted October 29th, 1921. Concerns a widow, age 43, whose occupation is housework.

*Chief Complaint*—Pain in stomach and bowels. Morphine addiction.

*Present Illness*—Patient had in March, 1920, a laparotomy for adhesions resulting from previous operations. Pain she now suffers began at this time and has continued. She has had to take morphine by injection twice daily, with the exception of an interval of eleven weeks in early part of 1921, on account of the abdominal pains.

*Past History*—Operation, perineorrhaphy, about 1902; appendectomy 1912; cholecystectomy and suspension of uterus, 1918; adhesions 1919, and 1920. Scarlet fever 19 years ago. Usual childhood diseases.

*Family History*—Mother living, nervous. Husband dead, influenza. Nothing significant in family history.

*Examination*—She is well nourished and has a good color. Cranial nerves, including pupils, normal. Neck, heart, and lungs normal. Abdomen somewhat rigid and apparently very tender to pressure, particularly in the stomach region. Reflexes equal and of normal intensity. Has scars of two incisions in region of gall bladder, one suprapubic and one through McBurney's point. Urine an-

alysis, specific gravity 1032, trace of albumen, few pus cells. Blood, 4,330,000. Hb. 65%. Leucocytes 8,400. Wassermann negative. Blood pressure  $108\frac{1}{2}$ . Poly morph. 68, L mono. 4, L lymph. 8, S. lymph. 20. November 25th, 1921, Skiagraph by Dr. McDermott shows pyloric end of stomach tucked up under liver. Iliac stasis. Caecum dilated after 24 hours. 72 hours, (after cathartic and enema) barium in sigmoid, transverse colon and a trace in the caecum. December 2, 1921, consulted with Dr. Major who reported abdominal adhesions, chronic morphinism. December 17th, 1921, consultation with Dr. Hall who reported right ethmoiditis, infected tonsils, ecchymotic area over left umbo-tympanic membrane. Intelligence quotient 90, (Stanford revision Binet-Simon). Progress note—November 15th, 1921, attempted to drink wood alcohol with suicidal attempt. December 12th, 1921, morphine has been stopped completely with no ill effects. December 19th, 1921, after a walk in grounds, fell into deep sleep from which could not be easily aroused. A later investigation revealed that morphine had been obtained secretly by a rather ingenious method. Patient still complains of pain at times, but is no longer getting morphine. She is rapidly gaining weight and strength, is about most of the time, and is capable of work.

To correctly analyze the two cases just presented is no easy matter. This applies whether we content ourselves with the symptomatology and the diagnosis, or the pathology. These difficulties arise in many of the cases of morphinism. A part of this trouble lies in the uncertainty about much of the data which we gather from these patients. One of the outstanding facts relating to this subject is that the veracity of these patients is always under question. The quantity of the drug used by a person addicted to the morphine habit, no matter what the duration, is always questioned by any one having had adequate experience with this class of patients. So frequently too there is a peculiar cunning connected with many of their mental activities. This point is always seriously considered by jail keepers and guards in the penitentiaries where these habits accumulate.

In the instance of the patient described under case No. 1: we are dealing with a psycho-neurosis which may be classified as hysteria. The seizures, rapidly becoming more frequent, were clearly hysterical in nature. Her emotions were of a somewhat frigid nature. However, an investigation along the Freudian line did not reveal anything of the nature of a psycho-sexual insult. In considering the loss of one of her relatives, a considerable amount of emotion was displayed rather suddenly.

Some physicians might object to classifying this patient as a morphine addict. There was some uncertainty in the history regarding the amount of morphine that had been given. In fact this history was obtained only after she had been under treatment for some little time. There was no appreciable amount of immunity established, for the drug must have been withdrawn suddenly at the time of her entrance into the Hospital. She accepted the treatment for the nervous disorder with only a moderate amount of annoyance, altho no opiates were given. If not an actual active morphine habitue, we can at least consider her as a highly potential one.

The patient described under case No. 2, was clearly a well established chronic case of morphinism. She stated that during a period of about 18 months she had been addicted to morphine given by the hypodermic method, with only a free interval of about 11 weeks. She lays a great deal of stress upon her trouble being caused by previous operations. Some of this operative work may be questioned. Likewise we have a right to question the period of duration of the morphine habit as given by the patient.

I believe that this patient was a psycho-neurotic long before she had become addicted to morphine, and before she had had any one of her numerous operations, the first of which dates 20 years back. In the meager hereditary history we find that the mother was nervous. No information can be obtained relative to the paternal side of the house. One daughter is very frail. On account of the history of the abdominal troubles and the numerous previous operations several other departments of the Hospital were consulted. Dr. McDermott



from the x-ray department decided after a test meal, fluoroscopic and x-ray examinations, that there was some delay in the test meal travel possibly due to adhesions. Dr. Major from the department of internal medicine was impressed with abdominal adhesions. Dr. Sudler and Orr from the department of surgery did not consider her a candidate for any further surgical intervention at this time. Dr. Hall, of the nose and throat department, diagnosed a right ethmoiditis and infected tonsils; and recommended a removal of the tonsils.

One of the outstanding features in the symptomatology of this patient is extreme hypersensitiveness of all parts of the abdomen to the slightest touch. The psychic features of this hyper-sensitiveness is quite evident. The threshold for painful stimuli in this patient is extremely low. Whether this was the case before she became addicted to morphine or even prior to the time of the first operation we can not say. However, I am inclined to believe that she has been hyper-sensitive to painful stimuli for many years. The morphine which she has taken has further increased this, or has lowered very materially her resistance to painful impressions.

It is very evident that this patient has several pathological states of an organic nature. However, she exaggerates her symptoms very greatly, partially on account of the hyper-sensitive state and partially on account of lowered moral tone, which is so frequently encountered in morphine habitues. Therefore, I have heartily agreed with several of the consultants that a discussion of her organic troubles with herself should be done very cautiously, and that no surgical intervention even though of a somewhat minor nature should be considered lightly. She may already be described as a too much operated patient.

In the treatment of this class of patients it is readily appreciated that one of the first type needs no particular treatment for the withdrawal of the drug. However, the neurotic state needs careful attention and above all things the general practitioner should consider her a potential morphine habitue before treating her for any surgical or medical troubles.

The treatment of the second case is no easy matter. Especially do I consider it inadvisable to treat her by any of the numerous special systems which are so frequently encountered in text books and the literature. Some of these systems are bad and some good. The latter may work very well with many patients. The withdrawal of the morphine habit has covered many weeks. Not more than one grain per day has been given, and this has been administered by the hypodermic method. Codein has frequently been substituted. Apomorphine was used once. Aspirin, belladonna, bromides, chloral, veronal, and pyramidon have been used for the sedative effect. Tonics and laxatives have been used freely. With all of the medication mental support and suggestive therapeutics has been used. The will power of these patients has always been much reduced and therefore requires considerable attention.

To illustrate one of the striking symptoms of morphinism I might briefly cite one incident in which both of the above described patients were involved. Patient No. 2 became quite drowsy at one period well along in the course of the treatment. This state lasted for many hours. Naturally it was suspected that she had obtained some morphine without our knowledge. Patient No. 1 voluntarily informed us of some concealed morphine which patient No. 2 had access to. At no time did patient No. 2 admit her knowledge of this concealed tube of morphine. Further mention of this incident which casts light upon the comparative moral integrity of the two patients requires no further comment.

Briefness of time prevents a thorough review of the pathology of morphinism. Study of the subject for a number of years has led to many valuable deductions.

In the first place we are compelled to think of morphine as a complex organic substance or alkaloid with a highly selective affinity for higher cerebral centers. Where excessive quantities of the drug has been given over a long period of time to animals, little or no change has been noted in the spinal cord. However, in the cerebrum and especially in the frontal lobe, marked alterations in the nerve cells, neurofibrillae and supporting tis-



sues have been noted. Tirolysis of various degrees may be seen. Early changes in the glia are observed. In well advanced cases many brain cells have totaily disappeared. This may in a measure account for the fact that in well advanced cases a full recovery or return to a normal state is impossible. Some changes in the lepto-meninges and an impairment of the cerebro-spinal fluid circulation may be noted. Relative to the pathological side it is interesting to note that in the lower animals it is more difficult to develop the morphine habit. The immunity in the lower animals, as for example in the pigeon, disappears much quicker than in man. Morphine has a highly selective action for neural protoplasm in the higher brain centers of man.

#### CONCLUSIONS

One particular lesson may be drawn from these studies, namely, that we can not be too cautious in giving morphine to individuals not fully under our control for a long period. Especially does this apply to psycho-neurotics of various types.

### Clinic of Dr. Thomas G. Orr

#### GENERAL REMARKS ON FRACTURES AND DISLOCATIONS

(An introductory lecture to Junior Medical Students.)

Fractures have, of course, existed since human beings and animals have existed. Volumes have been written on fractures and the study of the development of the subject can be accurately traced in the mass of literature of today. Among some of the names that will be brought to your attention in the study of fractures and dislocations are: Colles, Bigelow, Pott, Velpeau, Liston, Nelaton, Bryant, Malgaigne, Depuytren, Wolff, Thomas, Sayre and Stimson. These, with dozens of others, both more ancient and more modern, have contributed each his share to the sum total knowledge of fractures.

You will come to realize the importance of this subject more fully as you begin your work as internes and later as private practitioners. I believe that it is safe to say that no branch of surgery is so poorly done and so frequently neglected as treatments of fractures. This is due very largely to the lack of interest in the subject. Many physicians fear

fractures because of the frequent poor anatomical results and the legal complications that may result therefrom. A very prominent surgeon once told me that he had accumulated a few thousand dollars, with which he did not wish to part through some legal controversy over a fracture, so he was referring all patients with fractures to other surgeons. Listen to a quotation from Dr. Samuel D. Gross published in his surgery in 1872: "There is no class of injuries which a general practitioner approaches with more doubt and misgiving than fractures, or one which demands a greater amount of ready knowledge, self-reliance and consummate skill. Constant in their occurrence, and often extremely difficult of diagnosis and management, they frequently involve consequences hardly less serious and disastrous to the surgeon than to the patient himself. If I were called upon to testify what branch of surgery I regarded as the most trying and difficult to practice successfully and creditably, I should unhesitatingly assert that it was that which relates to the present subject, and I am quite sure that every enlightened practitioner would concur with me in the justice of this opinion. I certainly know none which requires a more thorough knowledge of topographical anatomy, a nicer sense of discrimination, a calmer judgment, a more enlarged experience, or a greater share of vigilance and attention; in a word, none which demands a higher combination of surgical tact and power. As for myself, I never treat a case of fracture, however simple, without a feeling of the deepest anxiety in regard to its ultimate issue; without a sense of discomfort, so long as I am conscious that, despite the most assiduous attention and the best directed efforts, the patient is likely to be lame and deformed for life. A crooked limb, whether rendered so by injudicious treatment or not, is an unpleasant sight to the sensitive surgeon, in as much as it continually reminds him of his bad luck or want of success. I do not wish by these remarks to be understood to say that it is always in his power to cure these accidents without deformity or impairment of function. Such a view would be contrary to experience and common sense. There are many cases of fracture which do not admit of any

other result, however attentively or skillfully they may be treated; and there are not a few which turn out badly, disgracefully badly, simply because of the want of co-operation of the patient. In such cases no surgeon is responsible." Hippocrates was somewhat sensitive about his fracture results as shown by the following quotation, "It is a disgrace and an injury to exhibit a shortened thigh. The arm, when shortened, might be concealed, and the mistake would not be great; but a shortened thigh bone would exhibit the man maimed."

A general knowledge of the subject is all important. As beginners it is difficult to learn just what to expect for results in fracture treatment. This can hardly be developed except by experience. A knowledge of the pathology produced by fractures is essential. What to expect when certain etiologic factors are known is important. The grosser anatomical points are indispensable. To know bone development and repair is requisite. X-ray interpretation must be carefully studied.

To illustrate some of the above, we may consider the pathology that may be produced by a fracture of the humerus. It is known that the middle portion of the shaft is apt to involve the musculospiral nerve at the time of the fracture or in the healing callus. Therefore, in this type of fracture, this complication should be known and always kept in mind. The attention of the patient should be called to such possibility, if such an injury is at all probable. You must learn to recognize that the essential pathology of fractured skull and vertebrae is not the fracture itself, but the injury to the underlying structures. This necessitates a knowledge of the traumatic pathology of the brain, spinal cord and nerves. Damage that may be done by improper treatment is of the greatest importance. A splint or bandage too tightly applied may produce irreparable damage. Your attention will be called to a type of such injury in Volkmans ischemic paralysis in connection with treatment of fractures of the forearm. As to etiology, it is well to know that age, sex, occupation and disease have much to do with types of fractures. The green-stick fracture occurs in the young as does separation of epiphyses.

An injury to the shoulder is more likely to produce a fracture of the clavicle in the young and a dislocation of the shoulder in the adult. Hip fractures are more common in the aged. Occupation and exposure have much to do with the frequency of fractures. Hence, fractures in general are more common in the male than the female. The physiology of bone and its healing powers must be studied. At first thought, one would not consider that bone will atrophy with disuse, but you will find that it occurs. It is well known that bone, like muscle, will increase in size and strength when additional work is given it to do. This you will find referred to in Wolff's law. Rarefaction of bone from disuse is evident in many injuries. Bone reacts to injury by foreign material by an attempt to extrude the offending body. This is especially noticeable when metal is the irritant. In the well known bone plating, the bone about the screws rapidly absorbs, permitting the plates and screws to become loosened. This absorption and loosening of screws is simply a protective mechanism on the part of the bone to remove a foreign substance. One can hardly study fractures without knowing osteology. The structure of bone, time of ossification of epiphyses, joint structure, relation of bones to nerves, blood vessels, muscles and tendons must be known to have a clear conception of the various injuries and the efficient management of their treatment.

The treatment of fractures in general, excluding the complications, is essentially mechanical. This is not so simple a procedure as it may at first seem. In the mechanics of treatment not only must the bone itself be considered, but other structures that have a direct bearing upon position or displacement of bony fragments. Muscle tissue is the chief factor in producing deformity and preventing reduction. Without using a knowledge of muscle action in reducing fractured bones, results are apt to be disappointing both to the surgeon and patient. You will learn, for example, that fractures of the humerus in the upper third and of the femur below the trochanter are usually displaced in a certain manner by muscle pull. This muscle pull must be considered in bringing the broken ends of the bone into position. In these two types of



fractures, where the proximal fragment is short and the distal long, the latter, to effect reduction, must be brought into line with the upper shorter end, because the shorter is more difficult to manipulate and control. The natural tendency to deformity should be known in each common type of fracture. Exceptions are frequently encountered, but exceptions are not frequently overlooked when the ordinary is well known.

Just a word in regard to the transportation of fractures. Too often we see patients with fracture of the long bones, picked up, put in an ambulance or other vehicle, and transported without any splinting of the broken part. Where the fracture is of such a nature that there is no motion of the broken fragments, splinting for transportation may not be necessary, but in the case of the long bones, this is usually not the rule. Let me impress upon you the importance of preventing further shock to the patient, injury to his tissues locally, by properly splinting long bones. Imagine a broken femur with jagged points being pushed and pulled about among the muscles, nerves and vessels of the thigh in handling a patient. You can easily visualize what irreparable damage may be done. Perhaps one of the most serious complications that may happen in such a case is the forcing of the broken fragments through the skin, making an open or compound fracture out of a closed or simple fracture. It is quite evident to you, who have studied the bacterial flora of the skin, what additional danger is here added. The importance of infection complicating fracture in this way cannot be too strongly emphasized. Temporary splints of wood or the Thomas splint, as used in the late war, are to be recommended. There is no difficulty in finding or shaping splints of wood for either the upper or lower extremities.

In a general way treatment may be divided into operative and non-operative. In the latter are employed plaster of Paris bandages or splints, board or metal splints and traction, either with or without suspension. The methods you will have impressed upon you as the individual fractures are studied. Let it suffice to say at this time, that fractures

should not be operated upon if it is possible to properly reduce and treat them without. Something that must not be lost sight of in the treatment of fractures is the patient himself. Never forget that a human being is being treated and must be considered primarily. To fix one's attention on the fracture and proceed to treat it without regard for the general welfare of the patient is the poorest type of surgery. A case in point will illustrate. Recently I treated a woman, seventy years of age, with a fracture of the neck of the femur. When I first saw her, an hour after the injury, she was somewhat shocked and suffering considerable pain. Temporary splints were applied for her comfort and she was taken to the hospital. There it was found she had an irregular heart, blood pressure of 210 and albumin in the urine. The day following the injury she had a temperature of 101. These physical infirmities prevented any effort to treat the fracture, except the very least that could be done by sand bags along the leg and thigh to limit rotation. All attention was given to saving her life. For a time it looked as if she were developing pneumonia. We did not know at what time her circulatory apparatus would reach the breaking point. It was far wiser in this case to leave her with her seventy years, two inches of shortening and permanent disability, than run the risk of immediate death by too much treatment of the fracture.

The ultimate goal of all treatment should be to return the tissue to as near normal as possible. Function then is to be kept foremost in mind. From a practical standpoint a good functional result with a poor anatomical reduction is more to be desired than a perfect anatomical result and impairment of function. Fortunately the latter is usually associated with good functional result. One should, therefore, strive to get both, but function is the more important.

In looking forward to the future use of the injured part, we should not lose sight of the orthopedic principles involved in the treatment of broken bones. This is especially important in fractures in and about joints. Where a deformity or disability is considered inevitable, the part must be put and main-



tained in the position that will give the greatest function after healing. Examples of this are injuries about the shoulder, elbow, wrist, hip and ankle. In case a stiff shoulder is anticipated, the humerus should be maintained in abduction, permitting a free movement of the shoulder girdle when motion in the joint is lost. At the elbow, the flexed position to approximately a right angle makes the most serviceable stiff joint. A stiff wrist that drops is much less useful than one that is cocked up or dorsiflexed. Test this on your own normal hand and wrist, and you will note the difference in your ability to grasp objects in the two positions. Straight stiff fingers are never as serviceable as flexed stiff fingers. Adduction at the hip is less disabling than abduction. Watch for contractures after maintaining parts in one position for a long period of time. This is especially important in drop foot. The foot should be maintained at a right angle during the treatment of leg and ankle injuries.

Do not be afraid to examine your fractures. Don't think that a splint must be applied and never removed until the point of fracture is solid. Even Hippocrates recommended frequent changes of bandage and if it was suspected that the bone was not lying properly, he removed the bandage and adjusted the parts. Don't cover up an extremity containing a broken bone and trust in Divine Providence to care for it for four weeks. Some of us would do well to follow the common sense teaching of Hippocrates. I should like to impress upon you that a broken bone encased in plaster is no more to be neglected than a post-operative appendicitis wound.

In closing you will pardon me if I sum up by the hackneyed method of repeated "don'ts."

In the diagnosis and treatment of fractures and dislocations:

(1) Don't fail to remember that you are not only treating an injured bone or joint, but a human being.

(2) Don't neglect to see your patient within twenty-four hours after the application of splints.

(3) Don't think that splinting, extending or suspending, ends the treatment, but ob-

serve the patient carefully until function has returned.

(4) Don't forget that good function is always the ultimate goal.

(5) Don't shirk the responsibility of caring for your patients with fractures. If fundamental principles are learned now, it will not be desirable or necessary.

#### —R—

Chronic Acro-Asphyxia.—This name is used to describe a vasotrophic neurosis in which the chief symptom is a progressive asphyxia of the extremities. It has the appearance and localization of Raynaud's disease, but differs from it in not being gangrenous and in being progressive. There are sometimes sensory and trophic disturbances of the limbs.

A case is described in a man of 25 who was confined in a hospital for the insane for dementia precox. He also had tuberculosis. His hands were cyanotic and his fingers swollen and cold. The hypertrophy involved only the soft tissues, the bones being normal, as shown by the Roentgenogram. The violet color disappeared on pressure but returned immediately afterward; there was no pitting on pressure. Tactile sense was normal, but pain and temperature were decreased.

There is a question whether this was a case of acro-asphyxia, of diminished sensation due to dementia precox, or of Dide's catatonic pseudo-edema. Many authors have described cases of loss of sensation in dementia precox which they attributed to psychic causes. Dide's catatonic pseudo-edema has many points of resemblance to acroasphyxia; it is elastic and does not pit on pressure, is grayish and often cyanotic, and is sometimes accomplished by symmetrical asphyxia, superficial erosions, spots of purpura pellagroid erythema and symmetrical painful adiposity. Dide thinks it is due to cerebral disease involving also the thyroid and the other endocrine glands. Abderhalden's reaction shows that the thyroid is almost always involved in dementia precox. It is possible that acro-asphyxia and Dide's pseudo-edema, occurring in dementia are very closely related, both being due to a common trophonenrotic disturbance.—Al. Obregia and C. Urechia. (*Encephale*, May, 1921. (Münchener).

## THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D.      -      -      Editor

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### Huffman for Governor

Dr Chas. S. Huffman has definitely announced that he is a candidate for nomination of the Republicans of Kansas. While he is a Republican and, if nominated at the primaries, will be a candidate on the Republican ticket, we believe it is safe to assume that every member of the Society will do everything possible to aid in securing the nomination for him.

During his long service as Senator and as Lieutenant-Governor he has established an enviable reputation for integrity and fairness and good judgment. He has served the public in various capacities and has served them conscientiously and commendably. He is trusted by his constituents, loved by his friends and respected by his enemies.

Dr. Huffman was closely identified with the Kansas Medical Society for many years. He was one of the most efficient secretaries it has ever had and held that position from 1901 until his election to its presidency in 1917. He has earned the respect and deserves the support of every member of the Society and every physician in the state.

—R—

### Who Shall Decide?

Something more may be said in regard to the matter of membership. While every county society should be jealous of its privilege to

determine the fitness of candidates for membership, this privilege should be exercised with a spirit of charity and forgiveness. Personal animosities should be forgotten in an association which is primarily for scientific study. Forgetfulness is sometimes a blessing to oneself as well as his friends. One is sometimes more tenacious of the memory of an insult to his dignity, than of the memory of many compliments and benefits coming from the same source.

We cannot justly deny to anyone an opportunity to make amends for any injury committed nor can we more justly refuse him the privilege of reinstatement in the good graces of his fellows when full reparation for his faults has been made.

Our organization is not a fraternity, but a scientific society with a few fraternal features which also embody the principles of mutual protection. In order that the greatest benefits possible may be derived by its members it is important that every physician who is properly qualified should be admitted. Sec. 5, Chapter X, of the By-laws reads as follows: "Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally registered physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership."

It is well to note that the qualifications for membership are not very difficult and it is well to note that nothing is mentioned concerning the ethics of an *applicant*. The Principles of Ethics, while they should govern the conduct of every physician, are only made applicable to members of the Society. It was the policy adopted in the reorganization plans of the association that this matter of the previous ethical conduct of an applicant for membership should be ignored. It was argued, and correctly so, that one inclined to ignore the principles of ethics would be more amenable in the Society than out of it.

Some of us very distinctly remember how we were compelled to admit to membership some men who had been expelled from the old organization and most of us have been

convinced of the wisdom of the policy which was adopted.

As was suggested in a previous article on this subject, it would be better to keep a good and worthy man out of a society than to cause its demoralization by taking him in. However, we are not ready to admit that such a dilemma exists or is likely to exist.

One is sometimes heard to say that if a certain applicant is admitted to his society he will withdraw his membership. At the same time it is not unlikely that the man belongs to the same lodge and the same church. But suppose such is not the case and this man who promises that he will leave his society on such provocation is admitted, for instance, to the "Odd Fellows" or "Masons" and after being initiated learns that this other man is already a member of that body, we wonder if he would withdraw. Suppose by some circumstance he should "get religion" and join a church and after being admitted to the fold learn that his unfriend was already a member. We wonder if he would sever his connection with the church on that account. We wonder, if this unfriend were already a member of the county society and he were not, if he would apply for membership. We confess an inability to comprehend the mental, moral or physical attitude of one who would refuse to affiliate with a church, a lodge or a medical society because of one man that he did not like or that did not come up to his standard of a gentleman or a physician.

In fraternal societies it is customary for one vote to reject an applicant for membership, but it is surprising how rarely the privilege of black-balling a candidate is exercised. In our medical societies it requires several votes to reject an applicant and it is surprising how frequently this has happened. We do not doubt that members voting against the admission of an applicant believe they are voting for the best interests of the society, but sometimes they may confuse their own interests, their own convenience, or their own peace of mind with the interests of the society. It is important that the interests of the county society should not be considered alone for it is only a small and insignificant part of a great national organization whose interests

are the interests of the whole medical profession. Our State Society will only be able to realize its ultimate purpose when every physician in the state that is qualified shall be enrolled as a member.

It is important that no applicant should be refused admission except for good and sufficient reasons—charges properly preferred, substantiated by definite facts with evidence to support them, and further investigated and evaluated by a court of inquiry.

The importance of this view of the matter will be appreciated by everyone who has carefully considered the present situation in medicine and the difficulties that threaten us. Perfect organization and thorough co-operation offer the only protection to our high standards of medical education and to future independence in the practice of medicine. In sickness insurance and state medicine lies the alternative.

—R—

### The Willing Horse Bears the Load

Some time ago we received a copy of a circular letter which is being sent to the county societies of all the states.

It was suggested that some publicity be given to the letter and the propaganda introduced. In rather uncomplimentary and uncompromising terms the American Medical Association is called to task for its faults of commission and omission; and after enumerating many evils to be counteracted the following statement is made: "Unless there is a drastic change in the policy and leadership of the A. M. A. the public and profession at large will continue to be misled and misrepresented in the solution of the most pressing problems affecting public welfare and the practice of medicine."

This letter is printed on stationery of the "Medical Advisory Committee" of which F. H. McMechan, M. D., appears to be Secretary. We wrote Dr. McMechan for further information, particularly as to the personnel of the "Medical Advisory Committee," by whom it was appointed and what functions and authority were delegated to it. In response to this inquiry the following letter was received.



February 3, 1922.

My Dear Doctor:

The Medical Advisory Committee is composed of A. M. A. delegates who fought for the rank and file at New Orleans and Boston, officers of state medical societies and editors of state and independent journals. Dr. E. H. Gehsner, of Chicago, the biggest opponent of health insurance, is Chairman, and Dr. J. F. Rooney, President N. Y. State Medical Society, who is cleaning up the narcotic situation, is Vice-Chairman. The Committee aims to be a clearing house for the exchange of information to the rank and file for the cleaning up of the present deplorable medicopolitical and economic situation.

To do this the policies and leadership maintained by multiple voting must be changed. The 15 section delegates, who are responsible to no state societies give 5,000 Fellows at the meeting the same voting power as 15 states with one delegate each, 20,000 doctors and ten to fifteen million population. These super-delegates also give certain states undue voting power. At Boston, New York had 5 of these super-delegates. Two trustees, whose re-election was contested, were re-elected by 7 and 15 votes respectively, showing the control of the A. M. A. by multiple voting, since these trustees were opposed by the delegates of the rank and file. Electing trustees for 7 years means a life term and senatorial rule. If trustees are satisfactory they can be reelected every two years or dropped.

At Boston Bevan challenged the results of foundation control of medical education. Recently Pritchard has admitted that the orthodox curriculum of the foundation medical school is wrong and must be revised. At the last Clinical Congress Deaver protested against the foundation's putting clinical professors on full time. More recently Pres. Butler, of Columbia, has predicted that if the present overhead of foundation control is continued the public will no longer help sustain medical education. Foundation control has made medical education so expensive and ultra-scientific that applicants are seeking the shorter cuts to the cults. Putting the smaller schools out of existence has created a real shortage of doctors and is depriving many applicants of a chance to study medicine. Meanwhile the Chiro school is turning out more Chiros a year than all the medical schools of the country are turning out doctors.

Certain elements in the A. C. S. and Hospital Associations are using standardization to put the closed shop across and have lay trustees determine the fitness of doctors to practice, thus over-riding the license of the medical board, the legislature and the consti-

tution. The family doctor will leave his patient at the hospital door or put an express tag on him at the country depot. What practice is left will be handled in health centers and hospitals under political or university control. This means that the doctor will become an ill paid servant of the state and the football of every politician.

A number of legislatures have sought to dictate doctors' fees. Congress has invaded the dictation of therapy with regard to alcohol, narcotics and childbirth and the A. M. A. is smoke-screening its negligence in opposing the drug cure, prohibition and public health lobbies by dividing the profession against itself. These lobbies are composed of the same element that are trying to socialize the entire practice of medicine. At present the Government is offering Chiro training to ex-service men and the A. M. A. is doing nothing about it.

Commercial laboratories and the hospital bureaucracy are determined to put lay technicians into every phase of medical practice that can be flat rated.

Unless you appoint a permanent committee on medical politics and economics in your county society to keep you informed about attacks on your interests and to protect your privileges, the profession will continue to be sold out to the up-lifters. The independent and many of the state journals are printing this information but it is lost to the rank and file in states other than their own. The Journal A. M. A. should be edited for the general practitioner and should be publishing all information available on medical politics and economics.

Give your delegates to the A. M. A. definite instructions and they will be glad only to protect your interests.

Fraternally and cordially yours,

F. H. McMechan.

During more than thirty years of association with the medical profession and membership in the A. M. A. the writer has held in the highest respect those men who have been selected by their fellows to represent their interests in so great and important an organization. It is difficult to believe that such men as those who have been recognized as leaders would foster any movement that might by any possibility be destructive to the interests of the profession, nor does one readily see how the personal interest of one of these men could be served by any movement antagonistic to the interests of the whole profession. That the American Medical Association could

or should control popular sentiment, public policies or legislative procedures is a visionary conception of its functions or purposes rarely held by any but the enemies of medicine.

One may admit that multiple representation may at times be unnecessary and may also at times be vicious, but it would be a rare circumstance if the 15 section officers frequently or ever voted as a unit. The fact that the two trustees mentioned in the letter were re-elected by small majorities does not necessarily mean that the section officers voted as a unit or that even a majority of them did. It simply means that a majority of the delegates voting believed that they were efficient officers and worthy of future trust and confidence. One, in his own conceit, may condemn a majority for its faulty judgment, but if one is right and the majority wrong it is a safe prediction that the majority will find its error and reverse its judgment more quickly than will one if he be wrong and the majority right.

The complainants would blame the efforts of the A. M. A. on behalf of higher medical education for the influx of the various substitutes for doctors. Granted that the large increase in the number of these imperfectly educated healers (?) of the sick is directly the result of the increased requirements for a medical education, it must still be admitted that a majority of the medical profession favored the movement for higher education. It will be a very small minority who would now revert to the former methods of teaching medicine. The greatest opposition to the high standard medical curriculum came from men connected with the small medical schools whose facilities for giving proper medical instruction were inadequate. None knew better how inadequate these facilities were than the men who were doing their utmost to teach medicine as it should be taught with the meager facilities afforded.

One may not readily conclude from opinions generally expressed that a majority are ready to reverse judgment on this question, but rather, that the minority who so bitterly fought the wholesale slaughter of the smaller schools have already admitted the wisdom of the majority.

In every organization of this kind there are a few men who are capable and willing to work. Having demonstrated their ability and willingness, they are shouldered with every responsibility that the less willing can see no honor or self-aggrandisement in. Out of this very common situation grows the criticism of "ring rule" and "star chamber" methods so frequently heard among those who have failed to convince the majority of the virtue of their demands.

There is no place for such criticism in an organization which is governed by a representative body if every delegate performs the duty entrusted to him. The House of Delegates is made up of representatives from every section of the country and if each of its members will study the questions submitted with ordinary intelligence and use his best judgment in casting his vote the profession will be served as it has a right to expect and the so-called "leaders" will be relieved of many responsibilities they are under no obligation to shoulder.

—————R—————

### The Council Meeting

The Council met in Kansas City on January 24. Once again every Councilor was present. The session began at ten a. m. and closed at six p. m.

The first subject for discussion was the next annual meeting at Topeka. It was decided that this should be a two-day meeting and should be held on the 3rd and 4th of May. The House of Delegates will meet on the evening of the 3rd, following a buffet luncheon to be served at 6 o'clock. It was also decided that this meeting of the House of Delegates should be open to all members of the Society and every one present should be allowed to discuss the subjects presented.

A committee was appointed to revise the by-laws, to correct some discrepancies in several of its sections, but more particularly to amend those sections referring to membership and the admission of members so that they will be more definite and conclusive.

Preliminary reports were heard from several of the standing committees. The Committee on Public Health and Education sub-



mitted a report and some resolutions. In pursuance of the recommendations made the Council constituted itself a lecture bureau for the purpose of supplying lecturers for public meetings over the State and an appropriation was made to cover the necessary expenses. For convenience the Editor was directed to act as manager of this Bureau.

The Committee on the Medical School, through its chairman, made a preliminary report indicating the lines upon which the final report will be made. It is safe to say that some very pertinent and very important suggestions are to be offered for the improvement of the school.

The report of the Editor as submitted to the Council was as follows:

January 24, 1922.	
Report of the finances of the Journal of the Kansas Medical Society, including the Credit & Collection Bureau and the Directory, from May 1, 1921, to December 31, 1921, by the Editor:	
Received—Journal and Bureau:	
Advertising.....	\$3,106.63
Subscriptions, Sales, etc.....	51.40
C. & C. Bureau.....	282.55
Kansas Medical Society.....	1,500.00
	<u>\$4,940.58</u>
Expended:	
Printing Journal.....	\$1,497.23
Stock, Stationery, etc.....	352.19
Clerk and Editorial salaries.....	1,700.00
Postage.....	170.90
Miscellaneous.....	142.50
	<u>3,862.82</u>
	<u>\$1,077.76</u>
Received from Directory.....	\$1,588.00
Postage.....	68.50
	<u>1,519.50</u>
	<u>\$2,597.26</u>
From Jan. 1921 to Dec. 31, 1921	
Received:	
Advertising.....	\$4,579.56
Subscriptions and Sales.....	59.15
C. & C. Bureau.....	364.14
Kansas Medical Society.....	1,500.00
	<u>\$6,502.85</u>
Expended:	
Printing Journal.....	\$2,339.08
Stock, Stationery, etc.....	773.97
Clerk.....	1,040.00
Postage.....	231.22
Miscellaneous.....	149.30
Editor's Salary.....	1,500.00
	<u>6,024.57</u>
	<u>\$478.28</u>
Received from Sale of Directory.....	\$1,600.00
Cost of Printing and Mailing Directory.....	1,324.98
	<u>\$275.52</u>

The receipts from the Journal and the Collection Bureau show an increase of \$702.55 over 1920. So that the Journal has been able to carry the expenses of the Collection Bureau and the expense of collecting subscriptions to the Directory and still show a balance for the year of \$478.28.

The cost of paper has dropped considerably. In March a ton of paper cost us \$341.76. In October a ton cost us \$213.12. On account of the printer's strike we had some difficulty in getting the Journal out and the printing of that issue cost us \$245.00. But in September we were able to reduce the cost of printing so that instead of an average of \$205.00, which it had cost us before the strike, we are getting the

work done for \$165.00. This should make some difference in our showing for the fiscal year.

We have estimated the cost of securing the data for and publishing the Directory at \$1,957.58, and we have received in all for subscriptions \$1,600, leaving \$357.58, which it has cost the Society to establish the card index directory required by the A. M. A. Or the publication of the Directory has saved the Society \$275.52 on the cost of securing the data and establishing the card index directory.

Subscriptions to the amount of \$1,588 have been collected since May 1st. We have deducted from this amount \$68.50 which was expended for postage for mailing the directory and mailing of bills and receipts, and hand the secretary herewith a check for \$1,519.50. We also submit for your consideration a number of unpaid subscriptions.

The Collection Bureau is still showing gains in the volume of business, and we feel that its ultimate development into one of the most important departments of the Society is assured. It has not been possible to separate the expenses of its operation from the expenses of the Journal, but its receipts have amounted to \$282.55 since May 1, or \$364.14 for the year.

Taking into consideration the high cost of material and labor, and the volume of business conducted by this office and large amount of work required, the Editor feels that this is the best report that has ever been submitted by the Journal.

Very respectfully,

W. E. McVEY, Editor.

The report was received and the present incumbent was reelected to fill the position for another year.

Each of the Councilors made an extended report on the conditions of his district and the work he had accomplished during the year.

The members of the Council were invited to be the guests of the Wyandotte County Society at its annual banquet, and spent an enjoyable evening.

R

## The St. Louis Meeting of the American Medical Association

The May meeting of the American Medical Association at St. Louis promises well toward being the largest in attendance of any of the Association's sessions. Since the publication of the hotels in the Journal of the Association in December, inquiries and reservations are being made daily. The hotels and the Conventions Bureau are aiding the Committee in a most satisfactory and helpful way to see that the Fellows are comfortably housed and accommodated. The A. M. A. meetings tax all cities entertaining them to the limit of hotel capacity. Whenever possible a good Fellow should double up so that no one is left without comfortable lodging.

Reservations should be made by communicating direct with the hotels. If satisfactory arrangements cannot be made in this way, write to Doctor Louis H. Behrens, Chairman Committee on Hotels, 3525 Pine Street, St. Louis, Mo.



# ST. LOUIS' LEADING HOTELS (ALL EUROPEAN PLAN), THEIR LOCATION AND RATES

American, 275 rooms, 7th and Market Sts.—With bath: Single, \$2.50-\$3.00; double, \$4.00-\$6.00.

## Diseases of Children:

American Annex, 225 rooms, 6th and Market Sts.—With bath: single, \$2.00-\$3.00; double, \$3.00-\$6.00.

## Pathology and Physiology—Pharmacology and Therapeutics:

Beers, 114 rooms, Grand and Olive Sts.—Without bath: Single, \$1.50; double, \$2.50. With bath: Single, \$2.00-\$2.50; double, \$3.00-\$3.50.

Brevort, 50 rooms, 4th and Pine Sts.—With bath: Single, \$2.00; double, \$3.00.

Cabanne, 43 rooms, 5545 Cabanne St.—With bath: \$12.00-\$37.50. (Weekly rates only.)

Claridge, 350 rooms, 18th and Locust Sts.—With bath: Single, \$2.50-\$4.00; double, \$4.00-\$10.00.

## Obstetrics, Gynecology and Abdominal Surgery:

Hamilton, 160 rooms, Hamilton and Maple Sts.—With bath: Single, \$2.00-\$2.50; double, \$3.50-\$4.00.

Jefferson, 400 rooms, 12th and Locust Sts.—Without bath: Single, \$2.50-\$3.00; double, \$4.00. With bath: Single, \$3.00-\$8.00; double, \$6.00-\$10.00.

## Surgery, General and Abdominal Orthopedic Surgery.

Laclede Hotel, 265 rooms, 6th and Chestnut Sts.—Without bath: Single, \$1.50-\$2.00; double, \$2.50-\$3.00. With bath: Single, \$2.50-\$3.00; double, \$3.50-\$4.00.

Majestic, 200 rooms, 11th and Pine Sts.—With bath: Single, \$2.50-\$3.00; double, \$3.50-\$4.00.

## Dermatology and Syphilology—Nervous and Mental Diseases:

Marion Roe, 200 rooms, Broadway and Pine Sts.—With bath: Single, \$1.50-\$2.00; double, \$3.00-\$4.00.

Marquette, 400 rooms, 18th and Washington Sts.—Without bath: Single, \$2.00-\$2.50; double, \$3.00-\$3.50. With Bath: Single, \$3.00-\$3.50; double, \$4.00-\$6.00.

## Laryngology, Otology and Rhinology:

Maryland, 240 rooms, 9th and Pine Sts.—Without bath: Single, \$2.00; double, \$3.00. With bath: Single, \$2.00-\$3.50; double, \$3.00-\$5.00.

## Gastro-Enterology and Practology—Urology.

Planters, 400 rooms, 4th and Pine Sts.—Without bath: Single, \$2.00-\$2.50; double, \$3.00-\$3.50. With bath: Single, \$2.50-\$5.00; double, \$4.00-\$8.00.

## Ophthalmology:

Plaza, 200 rooms, 3300 Olive St.—With bath: Single, \$2.00-\$2.50; double, \$3.50-\$5.00.

Roselle, 100 rooms, 4137 Lindell Blvd.—With bath: Single, \$1.50-\$2.50; double, \$2.50-\$3.50.

St. Francis, 120 rooms, 6th and Chestnut Sts.—Without bath: \$1.50-\$2.00; double, \$2.50-\$3.00. With bath: single, \$3.00-\$4.00; double, \$4.00-\$5.00.

Statler, 650 rooms, 9th and Washington Sts.—With bath: Single, \$3.00-\$7.00; double, \$5.50-\$9.50.

## Practice of Medicine:

Stratford, 100 rooms, 8th and Pine Sts.—Without bath: Single, \$1.50; double, \$2.50. With bath: Single, \$2.50; double, \$3.50.

Terminal, 100 rooms, Union Station—Without bath: \$1.50-\$2.00; double, \$3.00. With bath: Single, \$3.00-\$3.50; double, \$5.00.

Warwick, 200 rooms, 15th and Locust Sts.—With bath: Single, \$2.00-\$4.00; double, \$4.00-\$6.00.

## Stomatology—Preventive Medicine and Public Health.

Westgate, 125 rooms, Kingshighway and Delmar Sts.—Without bath: Single, \$2.00; double, \$2.50. With bath: Single, \$3.00; double, \$3.50.

City of Kansas City, Kansas.

Health Department.

January 25, 1922.

The Journal of The Kansas State Medical Society, Topeka, Kansas.

Dear Doctor: There is a party by the name of E. W. Haskelt who is probably working in the state of Kansas now. He claims to be the head of the Interstate Medical and Surgical Institute Association of Kansas City, Kansas, and promises to cure any disease that his victim has. He collects \$50.00 in advance for his treatment and usually sends one supply of medicine but never returns to the community like he promises. We have the names of five persons living in Marshall and Washington Counties, who have fallen victims to him in the last month. He probably will not return to those counties. Last year he worked in northern Missouri.

There is no such institute in Kansas City, Kansas, and if any doctor in the State will kindly wire or phone the Kansas City, Kansas, Health Department if they hear of him working in their community it will be appreciated.

Yours very truly,

L. B. GLOYNE, M.D.,

Commissioner Health and Sanitation.

—————B—————

## Chicago Venereal Disease Institute

The U. S. Public Health Service announces a Venereal Disease Institute to be held under the direction of the Illinois State Department of Public Health at the Congress Hotel in Chicago, March 13-18, inclusive. Courses in syphilis, gonorrhea, the problem of prostitution and delinquency, clinics and their management, clinic social work and methods of health education will be given. Special features will include daily noon-day luncheons and evening clinics.

The Institute at Chicago, like twenty others that are being held at central points throughout the country, offers the attractive educational features that characterize the All-America Conference on venereal disease held in Washington, D. C., during November and December, 1920. This regional plan for holding these institutes was determined upon when

the suggestion of a second conference at Washington stimulated nation-wide interest and it was apparent that hundreds of people who wished to attend would be obliged to make long journeys at considerable cost. The Chicago Institute offers even greater possibilities for this section of the country than would a national conference at Washington, since the same high standard of instruction will prevail and the relatively smaller number in attendance will make for a closer relationship between those in attendance and the instructors.

An invitation is extended to all physicians and especially those who are particularly interested in venereal diseases. Those who plan to attend are urged to register at once. Registration cards and programs may be obtained upon request from Dr. I. D. Rawlings, Director of Public Health, Springfield, Illinois.

—R—

### CHIPS

Melancholia is fed by talking about it.

It is estimated that one-eighth of the American people are foreign born and that one-third of the insane are of this class.

There is an antiseptic power in an active benevolence which counteracts the putrescence of melancholy and has, in some instances, proved an antidote even to the gangrene of despair.—(Reid.)

Physiologists place the maturity of a woman at 22 years and that of a man at 25 years. The average life of an inebriate at 15 years; he having had some 2,000 drunks on 2,000 gallons of alcoholic beverages.

A news item from a town in Washington states that a man who had been convicted for stealing two hams, at the suggestion of the court, had consented to be sterilized. It seems that the man was unable to secure work and that he had a wife and five children, none of the children being over nine years of age. The court dismissed the case and ordered the operation for sterilization.

We have been warned by the manufacturers they they own a copyright on the name "Vaseline" and if we use it any more we must capi-

talize it and put quotation marks about it. Which is entirely too much trouble, so we shall endeavor not to use it in these pages if it can be avoided.

Query—Would a white child, breast fed by a black mammy, have negro blood in its veins?

"All about milk" says that ten bottle fed babies die (!) to one breast fed baby. The chances are, therefore, ten to one against the bottle fed baby. Cow's milk is the substitute recommended for mothers' milk.

Chemists say that the milk of the goat is more nearly identical to the human mother's than that of the cow. The milk globules of goats' milk are smaller than those of cows' milk, and instead of the hard mass of casein, as is thrown down in stomach digestion in cows' milk, the casein in goat milk is soft, fleecy and flocculent, the same as that of human mother's milk.

That being a fact goats' milk should be more universally used in infant feeding. We can think of one reason why goats' milk is not more generally prescribed by the medical man, and that is his innate reticence in not wanting to butt in. Laying all jokes aside the plain facts are that goats' milk is far better for babies than cows' milk. It is more economical. Everybody can own a goat. The expense of buying and feeding a goat is within the financial reach of the baby owner who can afford to buy cows' milk. Goats' milk is too costly to buy. The stigma of ownership of a goat, attached by some possum headed person in the community, can be brushed away by a thin mixture of gray matter by the owner.

The odor of goat milk is prevented by the same care that should be taken with cows' milk to keep it clean. And Billy should be kept at long distance only when he is needed on state occasions.

The human brain is supposed to reach its maximum growth in its fortieth year. It can be stultified by non use the same as a pig can be stunted from lack of sufficient food, and brain and pig stop growing.

An interesting experiment was made by Professor Anderson of Yale University and reported by Charles R. Brown on the power



of thought. The Professor had a young man suspended in his laboratory on a perfectly balanced disk. He told the man, who was a mathematician, to think of some difficult problem in mathematics and to try to solve it mentally. As the man began to think hard, the nicely balanced disk tipped on the side where the man's head was, the blood flowed to the brain in increased amount, and that tipped the scale.

He told the man to think of running, for the young fellow had been a football player, and interested in track events. And as the man began to think of making a 100-yard dash, or of running down the field with the pigskin under his arm, the disk tipped to the side where his feet and legs were. The blood was flowing more freely into these organs.

By asking the man to repeat the multiplication table of nines, the displacement was greater than when he was repeating the table of fives, which is an easier table.

This experiment is evidence that a thought is a thing. An irritant applied to the human body, the skin for example, causes a determination of blood to the part irritated. Thinking causes a determination of blood to the part the thought is centered upon or in and is a thing.

The field of medicine is broadening out and has become so big that but few medical men attempt to cover it. A few years ago the medical man's energy, knowledge and time was taken up by relieving physical suffering. The doctor who confines his work to the relief of pain and the cure of disease alone, at the present time, is not exhausting his potentiality. The success attending the work of the medical man in conserving and prolonging human life has added to his responsibility in medicine and places him under greater obligations to human kind. The result of his humane work has been to conserve, restore and prolong the lives of many who are physically and mentally unfit to propagate their specie. This condition calls upon the medical profession for a way out, if the human specie is to be improved.

Harrison (Lancet Nov. 12) says: "I wish particularly to emphasize a fact often over-

looked in judging the value of quantitative renal function tests—viz., that it is estimated that probably not until about three-quarters of the total kidney tissue has functionally been put out of action do such tests reveal any abnormality. I refer, of course, to estimations of the functional activity of the two kidneys together."

Horder (Lancet, Nov. 12) states that "no longer can we regard the mere discovery of micro-organisms in the urine of a patient as indicating an infection within the urinary tract. Micro-organisms may indicate one of the following conditions: (1) A mere elimination of these from the blood without any urinary infection at all; (2) a focal infection at some point in the urinary tract; (3) a focal infection out side the urinary tract, but communicating with it by gross continuity or by lymphatic spread; (4) a diffuse infection of the urinary tract; (5) that the urinary tract is a "carrier" of the micro-organism, as seems the nature of some cases of bacilluria."

It is shown that mortality at practically all ages is higher among men than among women. In particular it appears that most favorable mortality in this country is found among women living in the rural districts. The rural classes, regardless of sex, enjoy a much lower mortality for nearly the entire range of life than those living in the cities. While the expectation of life, both among men and women in most classes has steadily increased, there is no indication of any definite lengthening of the span of life. In other words, while almost all classes of persons are living to an older average, the limiting age of human life does not seem to have advanced.

In 1901 the expectation of life among white females at birth was about three years more than among white males, and in 1910 the excess in favor of the females had increased to almost three and one-half years. There seems to have been a general improvement for all classes for the ages up to about 40 for men and age 50 for women, except for the Negro population. Above these ages no improvement is shown, and in some cases the mortality at the older ages in 1910 was actually less favorable than it was in 1901.



Dr. Parker Weber (*Lancet*, Nov. 5) says: "One of the most important connecting links between tuberculosis, especially pulmonary tuberculosis, and various general conditions of the body and local diseases and "accidents" in various viscera, is the state of the patient resulting from the tuberculous infection itself, either through the toxins or through the local pressure of tubercle bacilli, and through the local and general reaction processes by which the body more or less successfully opposes or overcomes the bacillary parasitic invasion.

"It is only with the help of such relative processes of resistance, which may be greatly favored and encouraged by general and special antituberculosis hygiene, that the human race can hope eventually so far to gain the upper hand that tuberculosis may largely lose its character as one of the most frequent causes of death and disability."

Up to 1900 the medical profession had to be content with extracts and other preparations of the suprarenal gland that contained, besides what was wanted, a good deal of inert and possibly irritating material. One manufacturing house at least was engaged in making a discovery—the isolation of the active principle of the suprarenal gland, or, if it is not quite accurate to speak of it as "the active principle," the pressor or blood-pressure-raising principle of the gland. For it was known that such a principle was contained somewhere in the gland substance, from the observed effect of aqueous solutions of suprarenal extracts; and it was this principle in pure form that was wanted. Physicians need not now be told that the manufacturing house alluded to (Parke, Davis & Co.) was successful in its quest, for Adrenalin, the pressor principle sought, has been in use by the profession since 1901.

The formol-gel reaction may materially simplify the diagnosis of syphilis. The method is: To 1 c. c. of the serum suspected add 2 drops of formalin (40 per cent formaldehyde) and shake. Let stand at room temperature for twenty-four to thirty hours. A positive serum coagulates into a firm jelly a negative remains fluid. Results usually tally with Wassermann's, proving perfect in all tests

made by the author. Test tubes used should be of the same diameter to make results comparable. Use a diameter of  $\frac{1}{2}$  in. for 1 c. c. serum. Less serum is disturbed by capillary attraction. A strongly positive serum makes a peculiarly firm jelly. A less definite serum gives a partly coagulated liquid. The longer a positive serum stands the greater coagulation.—J. Mackenzie. (*Brit. M. J.*, June 11, 1921.) (Menninger.)

The role of syphilis in chorea is shown by the case of a girl 11 years old whose mother had one spontaneous abortion. The children died in infancy, one at seven days, another at three years and the third at one and a half years. Three other children died of acute meningitis. There were two living children, besides the patient, who were not healthy. The mother was rheumatic. These facts point to hereditary syphilis.

The girl's history was as follows: About nine months before being brought for treatment her character underwent an alarming change; she became irritated at the slightest cause; laughed and cried often without provocation. When she was taken by the arms she uttered shrieks of pain. During the night she was always nervous; woke up every few minutes; made abnormal movements of the head, feet and hands. Her skin was pale, with scars the size of a lentil scattered over her body. Her teeth were of the Hutchinson type. Other marked symptoms were: slight craniofacial asymmetry, anisocoria, discoria, exaggerated tendinous reflection, pronounced Sergent's line, pain in various parts of the body on being touched, muscular forces much diminished. The choreic symptoms were especially noted at night.

Treatment consisted of mercurial rubbings in intensive form. In two weeks the girl began to sleep better and her abnormal movements decreased. This treatment was successfully followed from October to March, the mercurial rubbings being varied with syrup of iodids.—Mauricio Helman, *Semana Med.* (Menninger.)

Milk is the universal food. In some cases it is hard to handle because the acid stomach forms indigestible clots. This curdling may

be overcome without altering the value of the milk. In chymogenized milk the casein is precipitated in flocculent particles. In this form the casein is easily digested. Where the whole milk is wanted, boil, let cool to 105 degrees F. and add Chymogen.

If whey is wanted heat the milk to 105 degrees F. add Chymogen. When the curd is set, cut, drain off whey and use. Chymogen is from the Armour Laboratories.

—R—

## SOCIETIES

### Decatur-Norton County Society

A regular called meeting of the Decatur-Norton County Medical Society was held at Norton, Kansas, on Tuesday, November 8, 1921, with the following program:

A tuberculosis clinic was held by the State Sanatorium Staff at the State Sanatorium at 10:00 a. m., in which incipient, moderately advanced and far advanced cases of pulmonary tuberculosis were presented together with some quiescent, apparently arrested, arrested and cured cases for comparison.

At 12 o'clock, luncheon was served at the Institution, after which the program was resumed at the Commercial Club rooms in Norton at 2:00 p. m. and a symposium was held on the subject of cancer and its prevention. A number of public spirited and interested laymen were in attendance at this meeting. Inasmuch as a part of those who were on the program were not present, Dr. John Outland, of Kansas City, who was a visitor, took up the etiology and pathology of the disease. Dr. Wm. C. Lathrop rendered a very excellent paper upon the prevention and treatment, which was discussed thoroughly by Doctors Outland, Kenney, Pedley, Rallahan, Funk, Kennedy and Virden.

Dr. Frank G. Pedley, Epidemiologist of the State Board of Health, read a very instructive and scientific paper on The Shick Test and the Toxin Antitoxin Method of Artificial Immunizing in Diphtheria, which was thoroughly and carefully discussed by a large number present.

Doctors W. W. Scott, of Almena, and J. H. A. Peck, of St. Francis, having made applica-

tion for membership, were voted in as members of this society.

A six o'clock dinner was given at the Van Alman Cafe by the local fraternity and a smoker was enjoyed by the visiting doctors at the Commercial Club rooms at 7:30 p. m.

A great deal of interest was taken by the public in this meeting: two of the business men of the First State Bank sent flowers to the meeting and cigars were furnished by Mr. Elrod and Mr. Palmer.

The following physicians were present: H. M. Norris, Logan; H. O. Hardesty, Jennings; J. J. Jerinck, Prairie View; Arthur Reeves and L. C. Tilden, Oberlin; Wm. C. Lathrop, W. S. Hunter, R. M. Tinney, C. W. Cole, F. D. Kennedy, C. E. Virden, and C. S. Kenney, of Norton.

Visitors were: Doctors J. H. Peck, St. Francis; F. B. Rumsey, Almena; John Rhinehart, Quinter; John Outland, Kansas City, Mo.; O. M. Castle, Burlington, Colo.; Frank G. Pedley, Topeka; W. R. Aldridge, Norton; W. W. Scott, Almena.

C. S. KENNEY, Secretary.

### Stafford County Society

The society met at 2:30 p. m. in St. John, with the following members present: W. L. Butler, W. S. Crouch, T. W. Scott, Stafford; M. M. Hart, Macksville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John.

A committee consisting of L. E. Mock, J. T. Scott, M. M. Hart, were appointed to submit a new fee-bill at the February meeting.

Dr. J. C. Ulrey read a paper on smallpox, giving a history of the disease and calling especial attention to the importance of vaccination. It was a timely topic as smallpox is rather prevalent now over our state. The discussion was general and the members went home feeling they had learned some new things about the disease. Society adjourned to meet in St. John the second Wednesday in February.

On January 7th, our society suffered the loss of one of its active members, Dr. L. A. Fisher, of Byers. Dr. Fisher has been a member of this society for several years and by his upright life and professional courtesy has endeared himself to all its members as well as

to every one who knew him. He had been in failing health for some months but continued in active practice up to the time he sought surgical relief which proved of no avail. The committee on resolutions submitted the following which the society adopted:

Resolved, That in the death of Dr. L. A. Fisher this society has suffered a loss it can ill afford but to which it must submit. As individual members we would bear witness to his high professional standing and clean upright life.

Our society and profession have lost a worthy member, his family has lost a kind husband and loving father and the world has lost a conscientious, capable physician.—C. S. Adams, J. T. Scott, Committee.

J. F. Scott, Secretary.

#### Shawnee County Medical Society

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, February 6, at Stormont Hospital.

The following general committee on arrangements for the meeting of the State Society in May, in Topeka, was appointed: Dr. Earle G. Brown, Chairman; Dr. W. E. McVey, Dr. M. B. Miller, Dr. C. E. Joss, Dr. A. K. Owen.

An excellent program of clinical cases was presented by the members of the staff.

Earle G. Brown, Secretary.

#### Franklin County Society

The Franklin County Medical Society held its annual banquet at the Country Club in Ottawa, January 25. There were forty-eight present and an elaborate menu was served.

Judge C. A. Smart, of Lawrence; T. W. Morgan and Rev. W. A. Elliott were guests and responded to toasts.

Dr. F. C. Herr acted as toast master. Dr. J. R. Scott, retiring president, delivered the annual address. His subject was "Infections—Local and Otherwise" and was delivered in verse.

#### Sumner County Society

Members of Sumner County Medical Society met December 19, 1921, and had

luncheon with their wives at the Community Park House at 7:30 p. m.

Dr. A. J. Hetherington, of Maxfield, and Dr. Robert K. Werndorff, of Wellington, were made members. Dr. L. H. Sarchett gave a paper, "Syphilis in Diseases of the Eye, Ear, Nose and Throat."

Election of officers resulted in: President, Dr. H. Gerald Shelly, Mulvane; Vice President, Dr. L. H. Sarchett, Wellington; Censor, Dr. R. W. Van De Venter, Wellington; Secretary-Treasurer, Dr. T. H. Jamieson, Wellington.

#### DEATHS

Morton A. Pratt, Wichita, Kansas, aged 80, died November 28, in a local hospital, from injuries received in an automobile accident. He was licensed in Kansas, 1901.

Lewis Adisan Fisher, Byers, Kansas, died recently in a hospital, Sterling, Kansas, aged 64. He was graduated from the Medical Department of Butler University, Indianapolis in 1881. He was a member of the Kansas Medical Society.

#### BOOKS

Pitfalls by A. J. Coffrey, M.D. Published by Richard C. Badger, The Gorham Press, Boston, Mass.

The author has used "Doctor X" as the leading character in a series of stories showing the many experiences that may befall a general practitioner. He brings out in particular the many mistakes a careless physician may be led into and shows the unfortunate results that may follow. The stories are interesting to read and will be quite instructive to most of us.

Lessons on Tuberculosis and Consumption by Chas. E. Atkinson, M.D. 12 mo. cloth, 470 pages. Price \$2.50 net. Published by Funk & Wagnalls Company, New York.

This is another one of those books which a physician has written to help his patients—and other patients—understand his methods of treatment, so that they may co-operate with him. It is written in a popular style so that it can easily be understood. It is possible that these books meet a long felt want, but it is



more than likely that each physician would prefer to give his own instructions to the patients he is treating.

The Surgical Clinics of North America for December, 1921. The New York number. Published by W. B. Saunders Company, Philadelphia.

The December number of the Surgical Clinics is the New York number. As usual the articles are well illustrated. The first case reported is the extirpation of a dermoid cyst of the mediastinum. The case is a rather remarkable one from the history and the diagnosis that had been made.

The other clinical reports in this number are equally interesting and cover a very large field in surgery.

Practical Medicine Series under general editorial charge of Charles L. Mix, M.D. Vol. V. Gynecology edited by Emilius C. Dudley, M.D., and Obstetrics edited by Joseph B. De Lee, M.D.

This volume is one of a series of eight issued at about monthly intervals, covering the entire field of medicine and surgery. Each volume is complete on the subject of which it treats giving all that is new during the year previous.

### The Newer Medicinal Chemicals

On Friday evening, January 6th, Dr. Alfred S. Burdick, President of The Abbott Laboratories, Chicago, delivered an address before the Chicago Branch of the American Pharmaceutical Association, on the "Newer Medicinal Chemicals." The rapid growth of American chemistry through co-operation of all research agencies in this country, was emphasized by the speaker.

Concrete examples of American achievements in synthetic chemistry were recited, and a plea made for the support of the medical and pharmaceutical professions to preclude the possibility of our again becoming dependent upon foreign sources for chemical supplies. The history of Arsphenamine, Barbitol, Cinchophen, Neocinchophen, Chlorazene, Procaine, the Benzyl Esters and other synthetic medicinal chemicals was outlined. Announcement was also made of a number of new chemical bodies recently developed, and others on which research work was now being done by The Rockefeller Foundation, various

universities, the American Medical Association and The Abbott Laboratories.

In conclusion, Dr. Burdick urged both physicians and pharmacists to prescribe and dispense medicinal chemicals by the newer American names, rather than to perpetuate the pre-war dominance of foreign synthetics. This position was supported by the Council on Pharmacy and Chemistry of the American Medical Association, in whose laboratories American medicinal products have been analyzed and found to be equal and in some cases superior to foreign made products.

### Intravenous Injections of Glucose in Toxemia of Pregnancy

Intravenous injections of glucose for pernicious vomiting of pregnancy, as advocated by Paul Titus and M. H. Givens, Pittsburgh (Journal A. M. A., Jan. 14, 1922), in a previous paper, gave results sufficiently uniform and successful to warrant applying the same treatment to other toxemias of pregnancy, eclampsia in particular. Successful results have been obtained by the use of carbohydrates in treatment of vomiting of pregnancy in forty-six cases now reported in addition to the series of seventy-six previously reported. Therapeutic abortion was performed twice; in one of these cases the patient died from acute yellow atrophy of the liver. Immediate clinical improvement in individual patients, as well as a general lowering of the mortality rate in eclampsia, has been noted as a result of the intravenous administration of glucose for this condition. Chorea gravidarum, preeclamptic toxemia, and fulminating toxemia with ablatio placentae have likewise shown favorable results from this treatment. The usual necropsy findings in the liver of patients that have died of any toxemia of pregnancy are distinctly altered if the patient was given an intravenous injection of glucose solution before death. Those portions of the liver lobules which are ordinarily necrotic are thereby restored to a marked degree; and in most instances, a diagnosis of eclampsia or pernicious vomiting of pregnancy, as the case might be, could not be made from an examination of the liver sections alone. The regeneration of the liver cells after injection of

glucose, which can be demonstrated pathologically in the fatal cases, at least partially restores the normal functions of the liver, especially in respect to its action as the detoxicating organ of the body. Clinical improvement is usually noticeable within a short time after the injection. From 50 to 75 gm. of chemically pure glucose dissolved in from 250 to 500 c. c. of water may be injected slowly without danger of unfavorable reaction on the part of the patient. Single doses repeated as required are preferable to a continuous flow of solution into the vein. It is thought that the rate of absorption and storage of the injected sugar is an index of the condition of the liver. Glycemia curves plotted from blood sugar determinations at stated intervals after injection of glucose disclose the fact that the sugar is absorbed and stored by some patients more rapidly than in the normal controls, whereas in others the storage is slower than normal. While there may be other factors involved, the liver is the variable of greatest significance or importance among these individuals. A prognosis based on the first curve, therefore, is favorable because this liver may be assumed to have been depleted of glycogen in the course of the toxemia but able to restore itself when given an opportunity, whereas, the slower the rate of storage the more is an actual and extensive liver necrosis with loss of function to be indicated rather than a mere depletion of the cells.

—————R—————

#### Abdominal Migraine

The report made by William A. Brams, Chicago (*Journal A. M. A.*, Jan. 7, 1922), is based on a consideration of twenty-two cases seen at the polyclinic of Dr. Paul Cohnheim of Berlin. This type of epigastralgia is distinguished by periodicity, often coming on with almost mathematical regularity. The intervals between attacks are symptomless. There is a history of migraine in either the patient or his family, and there are no evidences of organic diseases, such as tabes, gallstones, pancreatic disease or subdiaphragmatic angina pectori, even after careful and prolonged observation over a number of years. Improvement was noted in many of the cases after antimigraine treatment when other

measures were without result. The cases cannot be classified in any of the groups described as neuralgia of the celiac plexus, vagus or sympathetic systems as described by several authors. Abdominal migraine occurs chiefly in those who suffer from typical head migraine or when there is a history of this disease in the family. In view of the frequent presence of disturbances in the female pelvis, it is suggested that a course of ovarian extract be tried in these cases in addition to the regular arsenic and antimigraine measures.

—————R—————

#### Studies in Blood Fat

The total lipid content of 400 specimens of human blood was studied by David Murray Cowie and Lynne A. Hbag, Ann Arbor, Mich. (*Journal A. M. A.*, Nov. 5, 1921) by the method advocated by Bloor, making use of the modifications and suggestions published by Gray. In thirty determinations on children who were in the hospital because of fractures, clubfoot or other non-medical conditions, no significant variation in the average total lipid content was found in an age series from 3 to 11 years. Eight diabetic patients examined showed an increase of total lipids, the highest being 8.8 per cent. When these patients were fed a minimum of carbohydrate and protein, but large amounts of fat, ranging from 100 to 220 gm. daily, and furnishing an adequate caloric intake for the individual, the lipid content of the blood steadily decreased. Starvation produced a 182 per cent increase in total blood lipids in four days in a 7-year-old boy, accompanied by the acidosis picture of diabetes. Another patient showed a 64 per cent increase in three days of starvation, and this was also accompanied by marked acidosis. The lipids of the blood rapidly decreased when the patients were given a diet high in fat and low in carbohydrate and protein.

—————R—————

#### Magnesium Sulphate Solution as an Aid in Anesthesia

Arthur H. Curtis, Chicago (*Journal A. M. A.*, Nov. 5, 1921) tested the value of preliminary hypodermoclysis of magnesium sulphate solution at the time of operation on ten patients. In all these patients, less than the

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usual amount of nitrous oxid-oxygen or ether was required. Postoperative symptoms were slight; it was particularly noted that pain and vomiting were almost entirely absent. This favorable preliminary evidence encouraged the routine use of the method. Unfortunately, one of the next three patients operated on died after sixty hours, with symptoms of acute poisoning. Because of the clinical symptoms and the changes found post mortem, death of this patient could not be ascribed to any cause other than the magnesium sulphate as the noxious agent.

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# THE JOURNAL

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## Kansas Medical Society

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### Hospitals and Nurses

NORMAN BRIDGE, M.D., Los Angeles, Calif.

Read before the Clinical Congress of the American College of Surgeons at Los Angeles, February 17 and 18, 1922.

In our recent great development of the care of the sick, and especially in their hospital care, all of which has done a great amount of good, we have fallen into some unfortunate fashions. One is the fashion of sending all of the sick that we can to the hospital. As this fashion has increased, the home habit and capacity for health conservation have decreased, or failed to advance correspondingly.

Today the hospitals are overcrowded, and economists as well as doctors are wondering what we could do with the sick if a withering epidemic should come upon us. Notwithstanding the great patronage and high charges, the hospital managements protest that they are not making money, and that therefore there is small inducement to build new hospitals as a commercial venture.

But there is great need for more hospitals, especially for those so built and so endowed that the room charges to patients would be much reduced from the present figures, say to one dollar per day. Hospitals should be built more cheaply. Inexpensive detached buildings should be the ideal. I know fire-proof structures are desirable, but they are very costly. And substantially all of us live through our whole lives in combustible houses. Why, then, couldn't we consent to go to a Cottage Hospital that is half as combustible as our dwellings?

The hospital fashion should be modified. More patients should be cared for in their own homes, and many more minor surgical operations should be done there. One of the leading surgeons has just told us how he elects to operate on certain cases in their beds in the hospital. It would mean more labor on the part of the household, more inconvenience

for the doctors and nurses. And the household would need to be educated in the unusual care required—and that could be done—and would be for the large benefit to the community.

There should be to some degree a revival of the old fashion of keeping the sick at home, and having more real knowledge and less guess work about sickness and nursing in the household. One of the sorriest burdens of our lives—a great handicap to most of our households—is the enormous expense of sickness and premature death. And most of our homes are shockingly uninformed of how to conserve health and fight off sickness. And such information is so easily acquired.

Too often the city home rests on the knowledge that the hospital is nearby, and has forgotten a lot of the simple methods of caring for the sick, and so a sort of helplessness has grown up. There are human hands enough in half the homes to take care of their sick, if only they were not so ignorant, so easily demoralized, frightened and helpless.

One of the best kinds of missionary work today in many of our communities is to give to the lay public, the women especially, instruction on first aid to the sick and injured; and how to do the simple things of nursing the sick. They should all be taught how to take temperatures accurately, how to count the pulse and the respiration, how to examine the pharynx, and especially how to record their findings—and to record them. They should be instructed how to make accurate records of everything pertaining to the patient—his food, sleep, sensations, suffering and otherwise; his excretions, and all changes from a normal condition. Whenever did it happen that a physician, called to a patient sick in his home for three or four days, has found a scrap of written history of the case? Not once in 500 cases. And every practitioner



knows the vital importance of the history of the beginning of the sickness, for diagnosis and prognosis.

The missionary would find the women of our households greedy for such instruction; and every housewife and daughter would become, by a few lessons, an extremely useful observer and nurse for simple conditions. By more knowledge they would be more sure of themselves, less in danger of stampeding by sudden sickness or injury—and so their courage and self-respect would grow—to their comfort and satisfaction—and to the unspeakable benefit of their sick.

From being proud of their own ignorance, as many of them are today, a multitude of these people would be proud to know that they could do these simple and useful things, and that they could make written records that any physician or trained nurse would commend.

The missionary would help to remove from the public mind many false ideas about the sick and their treatment—and the oft-found notion that education in medicine is needless, and that an uncultivated layman may know the mysteries of human disease by intuition.

A great surgeon, an early Fellow of the College of Surgeons, had once prescribed for his mother-in-law. The next day she came to him and said, "John, I have just seen Mrs. Blank, and she says you are wrong in your prescription." He replied, "Very likely she is right, but I really think that before you act on her suggestion, you ought to go out and ask the policeman on our street what he thinks about it."

One of the most crying needs, both in the hospital and in the home is for less expensive nursing. People of moderate means cannot pay \$25.00 a week for a room in the hospital and \$35.00 a week for a trained nurse. There are millions of these people, and they must be cared for in their homes, if they have homes, or go to the County Hospital; and those who have no homes must go to the County Hospital anyway—which is a pitiable hardship.

There must be—and there is surely going to be—a new order in nursing and nurses. We have about reached the point where near-

ly every educated nurse has been educated too expensively—so expensively that her charges are too high for people of moderate means. The remedy is to educate a lot of nurses less expensively, who can work for half the fees of the highly trained ones. They should be girls and young women, with a requirement of not more than a grammar school education, who will be trained intensively for not more than two or three months to fit them to be the assistant nurses or cadets under the supervision, in critical cases, of highly trained nurses, and in simple cases only under the direction of the physician.

For the simple things of nursing of the average case, there is no need for a college graduate, or even a high school graduate, who has been instructed two or three years in the art of physiology and anatomy as well as the more practical phases of nursing. To paraphrase an utterance elsewhere: Any bright girl can be taught in sixty days to take temperature, pulse and respiration accurately, to prepare and administer invalid diet, to administer drugs in all ways (except intravenously), to give baths and fomentations, and attend to the personal wants of the invalid, and to keep accurate records of the patient, and of her own doings. For the average invalid these are the chief things required of a nurse. Of course, in critical cases a fully trained nurse would be desirable; also in many surgical cases (probably not half of them); and where two or three nurses are required, one trained nurse and two assistants under her direction will be all sufficient.

At present our highly trained nurses, after probably a High School education, possibly some college study, and three years of training in and out of hospital, are doing much—even mostly—routine work that the cadet nurse could do well enough. The highly trained nurse should be reserved for people abundantly able to pay her (for any sort of a case) and for critical cases and critical situations requiring such skill as she alone has. The advent of cadet nurses would dignify and make more useful the highly trained nurse. And the latter ought to favor and further this movement—for it means a distinct promotion for her. By creating a lower



order of nurses, the dignity of her order is emphasized and advanced.

The high class training schools for nurses might profitably revise their course of study, and it should be shortened to two years or less. Most of the anatomy and physiology should be cut out of it, and there greatly needs to be added some instruction in the psychology of the sick and the well. The pupils had better read William James rather than pore over the medical books that doctors have to struggle to master—if they ever do master them. The psychology of the sick and the well means an understanding of how to manage the patient's mind, his whims, idiosyncrasies, his prejudices, and maybe his delusions. And a nurse who has learned that has unavoidably learned how to manage her own psychology, often to hold her anger and her tongue; to forget some of her crotchets, and to soothe without annoying. And a nurse who can do this is equipped indeed—she is a rare exception to the rule.

The high class training schools are now crying for more pupils for training. It is no wonder that these are scarce. Of course highly educated young women balk at the idea of spending three or more years in learning so simple an art as nursing the sick.

Why have these splendid training schools so expanded their curriculum? I don't know, unless it is the ambition of their scholarly superintendents to create a nursing profession of scholars. They have accomplished that purpose to some degree—but to the loss of the great service to the public which they might render. We have too long tried to attain the impossible, and I for one move that the scholar nurses—magnificent women that they are—be reserved for situations that need them (and can adequately pay them) and that cadet nurses shall do for the multitude tasks that require not scholarship, but honesty, faithfulness, the required knowledge and common sense.

—R—

"It is reported that one-fifth of the medical students in London are women and that England has more women studying medicine than any other nation." Information? Inquisitiveness? Both?

## Interrelations of the Glands of Internal Secretion

J. T. SCOTT, M.D., ST. JOHN

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

It is not deemed necessary to offer proof that the glands of internal secretion are related functionally. It is as evident as that the different organs and tissues of the body as a whole are related or that one part of a mechanically constructed machine is related to all the other parts.

That one of the so-called glands of internal secretion influences and is influenced by all the other glands is axiomatic with all who have given the subject any thought whatever.

The character and extent of that influence however is not so evident and authoritative opinions differ regarding it. Nor is it likely that there will be anything approaching a consensus of views in this direction until there is emergence from the chaotic condition of knowledge concerning the classification and elementary functions of these glands.

Based mainly upon the contention that extracts of different structures and tissues of the body produce physiological effects investigators have gradually added to the list until practically every organ and tissue of the body has at one time and another been classed with the glands of internal secretion.

To quote from Sajous' monumental work, *Internal Secretions and Principles of Medicine*, "The weakness of such a plea is self evident. Almost any organic substance will in some way or other affect the blood pressure and when we consider that all tissues contain more or less nuclein, intermediate and therefore toxic waste products, red and white corpuscles, and many other substances capable, each in its own way, of provoking some sort of reaction when injected into animals, the actual value of such experiments is reduced to nil". And he concludes by saying what is evidently true, "it is about as scientific as the giving of hashed ear for earache".

When we speak of the glands of internal secretion it is in contradistinction to the glands of external secretion or in other words there are in the body two sets of glands, one delivering its secretions into the blood and lymph channels and the other delivering its

secretions to the outlets of the body. This is simple enough but unfortunately it fails to fulfill the requirements in as much as there are glands that have both functions, as for example the pancreas, liver and gonads.

If we are ever to acquire satisfactory knowledge concerning the interrelations of the glands of internal secretion we must first recognize as a basic necessity the anatomical and physiological construction of the glands of internal secretion as an organic system. Such a construction presupposes the existence of major glands, so to speak, whose function or mission is to elaborate a secretion of physiological use to the body at large through life, governed by a nerve centre and aided and abetted constantly by lesser organs whose function or mission is specialized or specific and periodical, as for example the thymus which functions in childhood, and the gonads which function actively from adolescence to the climacterium.

What I desire to designate as the major or most important glands of internal secretion are the adrenals, thyro-parathyroids and pancreas. This classification is justified for the very important reason that in these organs alone has the secretion been identified at the seat of its formation, traced to the blood stream and, through the blood stream, to all the tissues. Furthermore the active principles, some at least, of each of the above mentioned organs have been identified and the relationship to their specific action demonstrated.

The importance of the adrenal glands is universally recognized since Brown-Sequard demonstrated in 1856 that their experimental removal from animals was invariably followed by death. Complete removal of the thyroids is followed by no less disastrous results although usually less rapidly.

These glands then are of vital importance and indispensable, serving as the activators and regulators of the basic physiological functions of the body. They are intimately related and normal physiological function is not possible with the absence or incapacity of either. Our present knowledge of their function is based upon experimental and clinical observation.

The theory which seems most plausible and increasingly convincing is that of Sajous, which endows the adrenal secretion with oxygen carrying power or in other words adrenalin is the agent that enables the blood to carry oxygen to all the tissues and fluids of the body. It is the great metabolism stimulator and as oxygen carrier is chiefly concerned in the process of catabolism, the burning up or destruction of the end products of metabolism. This necessitates its presence in every part of the body.

The thyroid secretion acts as the sensitizer of all eliminable matter, bacteriological as well as cellular, rendering it susceptible to the catalytic action of the adrenal secretion and as such it is the blood constituent Sir A. E. Wright has termed opsonin. This antitoxic and immunizing function seems reasonable when we recall that a large per cent of cellular matter as well as pathogenic germs is composed of phosphorus and that iodine in organic combination renders phosphorus highly inflammable. In consequence of this the thyro-parathyroid organs are endowed with the very important functions of carrying on the immunizing and antitoxic processes of the body.

Due to the fact that immunization and antitoxic reactions demand increased metabolic activity which means increased heat production, the thyro-parathyroid organs are concerned in the production of fever. A marked example of gland interrelation is here afforded. The thyro-parathyroid secretion sensitizes the products of metabolism, that is renders them readily oxidizable and the oxygen carrying adrenal secretion furnishes the oxygen to complete the process.

The above functions attributed to the adrenals and thyro-parathyroids places them at the very centre of the vital processes of the body, and together with the hypophysis which is not classed as an internal secreting gland but the governing centre, constitute the central organs of the adrenal system.

To recapitulate then the basic fundamental organs of the internal secreting system are the adrenals, thyroids and parathyroids, having as governing centre the hypophysis which activates and regulates their functions. All



of the vital life processes such as respiration, oxygenation, metabolism, nutrition, immunization, thermogenesis, are maintained by these organs which are coordinated through the agency of their nerve centre the hypophysis.

This is not to say that other glands ordinarily classed as glands of internal secretion, such as for instance the ovaries, testicles, kidneys, etc., are unimportant. That they do play an important part in the development and growth of the body is admitted and, furthermore, the gonads have an added function which manifests itself at puberty in developing and maintaining the secondary sex characteristics. The reason why of these phenomena, as with many others, is not forthcoming.

It should be remembered in this connection that all the above enumerated glands contain adrenalin rests or interrenal tissue and chromaffin cells identical with the tissues and cells of the adrenal bodies. That these form their true secreting mechanism is amply proven by the well established fact that the secretions give the same chemical and physiological reactions as adrenalin. Take for example the four which have stood out most prominently in opotherapy, the testicular, ovarian, renal, and pituitary extracts.

Sperm, the purest of testicular preparations, raises the blood pressure, slows the heart and produces all other physiological effects peculiar to the adrenal principles and has been found equally useful in disorders in which adrenal preparations have given good results. That it is a constituent of the blood at large has been demonstrated and furthermore it is found in the blood of females as well as males.

Ovarin extract contains an oxidizing ferment comparable to spermin. Just as castration causes a decline of the temperature so does removal of the ovaries, says Sajous; while both spermin and ovarin restore the temperature to normal. This is the identical action of adrenalin. Schafer and others have found, not only that a close analogy exists between the interstitial cells of the testicles and ovaries and the cells of the adrenals, but all three sets of organs are derived from the Wolffian body.

Kidney extracts act similarly in providing a means of stimulating oxidation in general. Brown-Sequard, Teissier and others have observed that renal extracts possessed marked antitoxic power, additional evidence of their influence on oxidation.

The general practitioner is no doubt more familiar with pituitary extracts than with any other of the organic extracts. Howell states that they cause a marked rise in blood pressure and slowing of the heart beat, these effects resembling in general those obtained from adrenalin extract. Herring, and more recently McCord, noted that pituitary extract caused constriction of the peripheral arterioles which is typical of the action of adrenal products. The clinical effects on the cardiac disorders recorded by Cyon, Renon and Delille indicate that they are due to the adrenal principle pituitary extract contains. Moreover Wiesel has shown that the pituitary body is the seat of a large group of chromaffin cells, that is, adrenal cells.

It would seem reasonable to conclude then that the above mentioned glands are closely related to the adrenal system, in fact are a part of that system.

In view of these established facts it is evident that an intimate interrelation exists between the glands of internal secretion. It is also as evident that the least departure from normal physiological function in any gland will derange function in all other glands. The action between some glands is synergistic and between others antagonistic. The adrenals are known to stimulate the conversion of glycogen into sugar and the thyroid stimulates that action, while the pancreas retards, inhibits and regulates the conversion of glycogen into sugar and therefore is antagonistic to both the adrenals and thyroids.

We have seen that extracts of all these glands show the presence of an oxidizing substance which has been identified as adrenalin, but it does not necessarily follow, nor is it claimed, that all physiological and therapeutic action is due entirely or largely to this agent. But to what agent or agents are these ever familiar yet mysterious changes due, why this specific and periodic display?

The thymus is an organ of infancy and ear-



ly youth and at puberty begins to atrophy while the gonads do not begin to function as sex organs until puberty and decline at the climacterium. The specific function is, in the normal individual, a certain more or less well defined period. That there appears in these glands during such periods a substance or substances that produce the characteristic changes is a reasonable presumption but is as yet only a presumption.

Bandler in his recent work *The Endocrines*, says, "if we can fathom and understand what the ductless glands have done to an individual up to the stage of puberty, we may appreciate why the individual develops as he does. If we can reason out what these ductless glands have done to that individual from puberty on, we may understand why that individual is what he is and why so many changes have occurred in him. If we can eventually fathom what hereditary and accidental and intercurrent factors are responsible for these gland changes and for the consequent somatic, mental and psychic factors, then medicine will have accomplished a glorious work".

It is then through the medium of a better knowledge of the functions and secretory products of the ductless glands that we may hope to arrive at a better understanding of these mysterious and confusing problems. This leads me to again quote from Bandler who says in his preface—"what is known of the endocrine glands is bearing more than sufficient root to form a working basis for the understanding of the numerous hereditary, physical and psychic questions. Only by therapy and by the use of the extracts of these glands can we be led to definite conclusions. Hence every practicing physician has in his hands the material with which he may lend aid in the research along these lines."

It is interesting and helpful to consider the causes that influence and alter the normal functions of the endocrines, also the different degrees of influence and alteration.

Until recent years attention was paid only to the grave manifestations met in such disorders as Basedow's disease, Addison's disease, acromegaly, dystrophia adiposogenitalis, infantilism, gigantism, etc. Recently there

has been evident an increasing interest on the part of the profession generally in the less obvious disorders due to derangements of these glands. That the above mentioned diseases are due to pathological processes in certain endocrine glands is well established, but what of the mental and psychic factors which are no less and vastly more common causes of endocrine upset?

Bandler calls attention to this phase as follows—"the first truth to be recognized in the study of the endocrine system is that an upset in any one gland has an effect on the whole cycle, causing overactivity and under activity of one or more or all or of many. This introduces all of the various changes belonging to hypersecretions and hyposecretions of the other glands, particularly the adrenals, hypophysis, thyroid and ovary. The triangle of thyroid, adrenals and pancreas is well known. The adrenals are intimately associated with the pancreas, the pancreas is intimately associated with digestion, sugar metabolism and the liver function. Hence a thyroid affection, either hypersecretion or hyposecretion, acts through the adrenals on the pancreas itself, and through these three organs there is a change in metabolism and liver function. Besides thyroid stimulates peristalsis and intestinal secretion. Hence the innumerable digestive annoyances associated with hyperthyroidism particularly.

Undoubtedly the greatest difficulty in the proper interpretation of interglandular upset depends upon the fact that so many of them are of minor degree, of a degree less than is typical of the well exemplified cases.

If we have exophthalmic goitre on the one hand and myxedema on the other; gigantism or acromegaly on the one side, certain types of dwarf or dystrophia adiposo-genitalis on the other; tetany and paralysis agitans on the one hand, myasthenia gravis on the other; excessive sexual and physical development due to tumors of the pineal, hypophysis, adrenals and testis on the one hand and cases of undeveloped genitalia and infantile uterus on the other, acromegaly on the one hand, osteomalacia on the other; if we have the extreme disease known as Addison's disease, why may we not expect minor degrees of involvement in the

glands or pluriglands responsible for these major cases, the resulting symptoms here often lacking the typical earmarks, which define the standard types of which we have made mention?

The failure to recognize the part played by the ductless glands in the common disorders met in daily experience is largely responsible for the unsatisfactory results of treatment in these disorders. In the words of a recent author, "we must come to the conclusion eventually that all the physical and mental states depending upon endocrine pathology will be found to have innumerable variations, from the forms known as types to the slightest degrees of variations, including those forms known as neurasthenia and hysteria, in the vast majority of cases erroneously."

### — R — Fitter Families

ELVENOR ERNEST, M.D., Topeka

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Everything has its compensations: even our recent and unpleasant voyage to Europe.

The wholesale and thorough examination of men and women for over seas service has awakened a pride in physical fitness that has given a tremendous stimulus to health measures generally.

Prevention is the present day password. Our own State Legislature this year considered (I use the term advisedly) an amazing assortment of bills touching on the physical welfare of the public, the Children's Code Commission alone recommending an assortment of 23.

Last September the State Board of Health, through the Division of Child Hygiene, conducted a very interesting and successful experiment during the Topeka State Fair under the clever caption, "Fitter Families for Future Firesides." To Dr. Florence Brown Sherbon, Superintendent of the Bureau, and Mrs. Mary T. Watts of Iowa, the untiring originator of "Better Babies," is due the credit not only for the unique alliteration but for the idea itself.

A group of instructors and physicians from the Kansas State University and the Emporia Normal School together with the State Board

of Health and local physicians to the number of 29 conducted the examinations. The Federal Children's Bureau of Washington sent Dr. Florence Mackay who superintended the scoring of children under six years. Numbers of group and general meetings were held and the whole field of previous endeavor was reviewed. The task of preparing a suitable form was at first overwhelming. Many were the puzzling situations that arose, particularly in regard to the relative importance of history, the value ranging from 5 per cent to 75 per cent according to the individual viewpoint.

Eventually a very satisfactory form was compiled from all available sources, including The Life Extension Institute, The Eugenics Record Office Cold Springs Harbor, The National Bureau of Education, The Children's Bureau and the American Medical Association Score Card. The Score Card of the State Division of Child Hygiene was used for children under six.

The Fair Association furnished a building that seemed adequate but proved much too small. The local hospitals readily provided nurses. The plan was presented to the public as a contest and only normal people were invited to enter. It was not widely advertised and it had been agreed that 80 complete examinations would be the most that the limited group of examiners could handle. One hundred and thirty-six people were scored and as many more were turned away. Ten additional were incomplete for lack of time.

The clever alliteration drew, and all patiently waited to complete the long and necessarily tiresome ordeal, two families coming over 100 miles expressly for this feature of the Fair. Twenty-five families completed the examination with an average of four individuals to the family. There were three grade A families, all farmers, with scores of 95.11, 94.6 and 93.92, the winning family composed of five members. The remaining 22 families all graded B. In these two family groups 55 graded A, 41 B, and four were incomplete in minor details and ungraded. Twenty-nine extra children and seven extra adults were completely scored. A silver cup, the Governor's Trophy was awarded by Gov-



ernor Allen to the highest scoring family and medals were given by Senator Capper to all individuals scoring 90 per cent or better. Report cards were sent to all contestants giving divisional scores and reasons for scoring off, with advice. The original examination papers are filed in the State Board of Health office.

The form used comprised three distinct sections: psychometric, structural and physical including laboratory findings. Wassermanns, smears and urinalyses were confined to adults.

A brief personal history and description of the individual included occupation, education and nativity. Sixty-seven of the 100 people in family groups were Kansas born. Of the adult males only one had not completed at least the grades. Twenty-two had from one to four years high school—13 additional college work. Two had degrees in law, one a B. S. Thirteen were farmers. The remaining nine represented as many trades and professions, but none bore the cognomen "laborer."

Of the 29 adult females all had completed the grades with additional high school or college work. Three had A. B. degrees. Of the 25 mothers in this group 12 had been teachers.

In the adult group of 53, thirty-four were suffering from corns besides other evidences of bad shoeing. (Think of the grouches this represents.)

On a basis of 1,000 points, 300 were allotted to the psychometric, 200 to structural and 500 to the general physical examination including 50 points for laboratory findings.

The adult male psychometric average was 258.8, the adult female 254.8.

The adult male structural average was 172.6, the adult female 168.5.

The adult male physical average was 415.7, the adult female 441.

The detailed physical findings will not be read but only a few interesting points will be included in this paper.

The average age for fathers was 34.5 years. 78 per cent were underweight. The average mother's age was 33 years, 60 per cent were underweight, sixteen of these women (25) presented evidence of extensive perineal tears; nine repaired. Twelve suffered from various

pathological conditions of the genital tract. Seven had pronounced hemorrhoids.

Seventeen of the 23 fathers had been vaccinated and seven inoculated for typhoid and influenza. Nineteen of the 25 mothers had been vaccinated and two inoculated for typhoid and influenza.

Measles, whooping cough and chickenpox divided honors for popularity, outnumbering all other diseases combined: 43 adults acknowledging measles, 38 whooping cough and 33 chickenpox. These diseases still continue to be fashionable as indicated in the children's report: 24 of the 47 having had whooping cough, 18 measles, and 10 chickenpox. Vaccination evidently has not shared in favor, only nine being recorded with three inoculations for pertussis and two for typhoid.

Fourteen operations, including eight for tonsils and adenoids, were performed on adults against 13 in children—eight for tonsils and adenoids and five circumcisions.

Fifty-eight per cent of the children of school age were underweight!

Of the 29 children under six, 26 were registered—25 in Kansas and one in Missouri. Twenty-six exhibited normal mentality. One female child proved above the average and two males below. Seventeen were underweight, seven being very badly nourished. Eight were overweight and four were fair averages. Dentition was normal in 19. Five had adenoids and bad tonsils, but eyes, ears and noses were normal. No pacifiers were in evidence except one wee thumb. Of the 18 boys, five had been circumcised and six additional were referred to the family physician for operation. Faulty development in the form of six winged scapuli, three bulging foreheads, five square heads, three depressed sternebrae and one case of intercostal beading were noted. Sixteen showed faulty hygiene in dirty scalps, skin eruptions and insect bites. It was interesting to remark only one birthmark in the entire group of children.

#### SUMMARY

It would appear that this group is rather above the general average in education and intelligence and that it represents "well" people.



These people are all in "comfortable" circumstances and yet badly nourished.

There is still too great a percentage of preventable contagious disease.

There is need for better obstetrics and more instruction in prenatal care.

There are too many bad feet and worse shoes.

There is too great an imbalance between "higher" education and physical fitness.

#### CONCLUSIONS

If this group represents "well" people, what about an average group?

If this group represents educated people, what's the matter with our educational system?

This plan as carried out under the supervision of the State Board of Health is practical and effective and should serve its purpose as an opening wedge in broader health education. It is popular and educational. It will aid in establishing a pride in physical fitness and encourage good health.

It presents the results of physical findings to each individual enabling him to consult the right authority for correction of pathological conditions and physical defects.

It is an education along the line of keeping fit from the standpoint of personal comfort and happiness and the welfare of future progeny.

It is eugenics brought home to the individual, seeking rather than sought, a practical application of a heretofore rather remote abstract philosophy.

If not to the medical profession to whom shall the public turn for instruction and guidance in community health interests?

#### Reflections by the Prodigal

##### DESCETUDE

The working of the human mind is past finding out. If it could be fully comprehended there would be no contingency in life. Everything would be known and there would be nothing more to learn. The unknown is the fallow ground factor in the psychic field in evolution. The idiosyncrasy of the human mind, en mass, is fairly well illustrated in the practice of medicine in the treatment of "the Unbalanced Mind," at one time B. C.

and that of the present day. The bad in the practice, when known, is not only eliminated but much of the good is neglected or forgotten and has to be resurrected and all learned over again.

The amnesia of the psychic on the part of the good in the practice of the profession as a whole may be accounted for in measure by over zeal in trying out the promised better results in a newer practice and in this way the old trail is covered over and becomes obscured by neglect and forgetfulness.

This gives the modern, medical archeologist something to dig up. The motive also has to do with failure. The right thing done with the wrong motive is doomed to failure finally, the same as the wrong thing done with the right motive.

The right motive and doing the thing in the right way does away with neglect and forgetfulness and assures permanency and success in the practice. Pinel, who wrote over a century ago, in describing the treatment of the "Unbalanced Mind," practiced in Ancient Egypt before the Christian era says, "Efforts of industry and of art; scenes of magnificence and grandeur; the varied pleasures of sense; and the imposing influence of a pompous and mysterious superstition, were never devoted to a more laudable purpose. At both extremes of Ancient Egypt, a country which was at that time exceedingly prosperous and flourishing, were temples dedicated to Saturn, whither melancholians resorted in crowds in quest of relief. The priests taking advantage of their credulous confidence ascribed to miraculous powers the efforts of natural means exclusively.

Games and recreations of all kinds were instituted in the temple. Voluptuous paintings and images were everywhere exposed to view. The most enchanting songs, and sounds the most melodious, took prisoner the captive sense. Flower gardens and groves, disposed with taste and art, invited them to refreshing and salubrious exercise. Gay decorated boats sometimes transported them to breathe, amid rural concerts, the pure breezes of the Nile. An appropriate and scrupulously observed regimen; repeated excursions to the holy places, preconceived fetes at different stages

to excite and keep up their interest on the road, with every other advantage of a similar nature that the experienced priesthood could invent or command, were in no small degree calculated to suspend the influence of pain, to calm the inquietudes of a morbid mind, and to operate salutary changes in the various functions of the system."

The principle of the practice by the priesthood in the cure of the insane, in those ancient times, was the same as that practiced by the most enlightened and successful alienists of the present day.

The motive of the priesthood in the treatment of the insane was a purely selfish one. It was done in the name of religion (not Christian) and wholly for self aggrandizement. Ignorance on the part of the unfortunates was the priesthood's stock in trade. Ignorance begat superstition which resulted in a chaotic condition of the mind with the attendant results of skepticism, disbelief, neglect and forgetfulness of the good in the treatment although it was the right treatment but done for a wrong motive.

The motive of the medical man in the treatment of the insane, at the present time, is a philanthropic one and done in the right way. It is to restore the unhinged to a normal workable condition that the sick man may become self supporting and a useful member of society.

The motive, then, being the right one and the treatment right the permanency and never to be forgotten present method of the treatment of the insane is favorable prognosed.

#### INTERESTING

The civil law doctrine of triennial cohabitation as modified by Justinian, the essence of which is that if a wife be a virgin, and apt, after three years cohabitation, her husband will be presumed to be impotent and have the burden of proving himself not in fault, was applied by the New Jersey Court of Chancery in *Tompkins vs. Tompkins*, 111 Atlantic Reporter, 599, a proceeding to annul a marriage for incurable impotency. This is probably the first time the doctrine has been applied in an American court, although it is a hard and fast rule in the courts of England.

Vice Chancellor Backes, in adopting the

doctrine, said: "I do not find countenance given to the doctrine in any of the reported cases in this country, but I can conceive no good reason why it should not be introduced into our Jurisprudence as a rule of law in the decision of these vexed questions of fact, to which, usually, the parties alone bear witness, each blaming the other. The doctrine is logical and sound in principle, and helpful and convenient in the proper administration of justice. It appeals to one's sense of justice, for it would seem but fair that after three years' probation a husband ought to account for his dereliction to his disappointed and complaining spouse. The period is none too short."

West's Publishing Company's Docket. Comment. The foregoing decision is good law (?) logic (?) and reasoning (?). But poor and impracticable common sense to the physician.

It is needless to point out the physical and moral weakness of such a decision to the medical man.

It is in keeping with the English line of primogeniture—where the oldest son gets all the property when the parents die. Also in paying a king \$3,500,000 salary and to keep up his retinue of servants and put on dog.

New Jersey and California out distance the old blue laws of New England and leave Kansas in her swaddling clothes. In California the court decided the fatherhood of an illegitimate child by chemical reaction of the blood of the child being the same as that of the reputed father.

This is one of those rules that works but one way. And it reminds one of the first syllable of a telephone call—law.

#### "DOCTOR"

The regular medical profession is all riled up over the word Doctor. The claim is, that the name "Doctor" is being wrongfully applied—counterfeited—traded by its promiscuous application to unworthy persons—misfits. That it lessens the honor attached to the name "doctor" in the eyes of the public and self respect for the name by the one entitled to it; and that its financial value is reduced below par to its legitimate owners by the pseudos.



Be this as it may, personally we have never felt edified by being called "Doc." It featured in the mind of an association on tinkerer. A kind of jack of all trades and knowing but little of anything about any one of them. In answer to the question "What are you?" always preferred the name physician. Too many professions try to teach something of which they know nothing and are dubbed Doctor or Doc. The name "Doctor" is not patented and therefore does not come under the protection of the patent laws.

We are persuaded that the honor which is supposed to attach to the name is not worth fighting for. In fact the prestige in the name "Doctor" (if any) cannot be kept at par by trying to disinfect it by opposition and suppression of the use of the name by the unworthy. The name "Doctor" compels no honor in and of itself. It is a fiat honor, and intrinsic value is given it by the merit of the doer, only.

Again the name "Doctor" is common to all learned professions. When the name is mentioned the speaker may mean Doctor of law, theology, medicine, music, feline, equine, etcetera. An explanation has to be made to specialize the kind of doctor meant. It would save time, trouble and confusion by silently dropping the name by non use in addressing our fellows, and when asked "What are you?" answer, "I am a physician," or physician and surgeon as the case may be. Or let us call our fellow physician Sir, or the family name, and let merit add the honor. A man to be listed on the real board of exchange honor must be bigger than any official title. The name Abraham Lincoln is a bigger and more honored name than President of the United State. Aesculapius, Harvey, Jenner and Sir Morrell McKenzie are bigger names than that of "Doctor."

In fact the Nazarene, who used suggestive treatment only, is held to be the great Physician. These men were doctors except one. But they made their surnames so great that they are seldom spoke of as Doctors.

The thought is pretty well illustrated in the ditty where the boy questions:  
 "How big was Alexander. Pa?  
 That people call him Great.

Was he so tall that he could stand  
 Like some tall steeple high  
 And when his hands were on the ground  
 His feet would touch the sky?"

And the father's answer:

"Oh! No! My child—  
 About as large as I, or Uncle James  
 'Twas not his stature made him great  
 But greatness of his name."

It is the name that counts and it must be the product of the one entitled to it. No vicarious act can thrust honor or merit on another when not earned.

The conclusions are that while the name "Doctor" is an honorable one to the possessor of it, if he has the goods, that active opposition or an attempted suppression of the use of the name by the pseudos is useless, unnecessary and not worth while by an honorable profession.

That in the classic words of the two negroes who were quarreling when one of the negroes asked the other, "What am dis big fly dats bodderin' aroun' me?"

"What am it? It am a hoss fly."

"What am a hoss fly?"

"Oh it's a big fly dat buzzes 'round hosses and jackasses."

"What for you call me a jackass? I break yo' head."

"No sah! No sah! I don't say yo' is a jackass, but you can't fool a hoss fly."

Moral: Don't let us worry or get "riled" up over the title "Doctor."

(a) The public will settle it.

—————R—————

Typifying the Charlatan. As Young Know-It-All was crossing a bridge he saw an old man dropping fish worms in the stream and shoals of fish were circling around in the water below.

"Ha! there! Mister, what are you doing?"

"Fishin'," said the old man.

"Well, that's not the way to fish," said K. A. "You should put the bait on a hook, the hook to a string, and the string on a pole, drop the hook in the stream and then the hook will catch them."

"Wall," said the old fisherman, "that may be yore way, but I gits thare confidence fust, then I throw the hook in 'em."

## BELL MEMORIAL HOSPITAL CLINICS

## Clinic of Donald R. Black, M.D.

Department of Metabolism

## DIABETES WITH HIGH BLOOD PRESSURE

The problem of carbohydrate metabolism, while not new has been broadened immensely of late, especially since the technique of blood sugar determinations has been simplified, and since we have been using the Glucose Tolerance Test more frequently.

The three cases I have in mind today certainly throw some light on glucose metabolism, and to me suggest a renal element especially in weakened sugar metabolism in certain high blood pressure cases.

Case 23717—Female, colored, age 67, height 5 feet, 6½ inches, weight 135 pounds. Entered clinic July 15, 1921, complaining of pain in chest, loss of weight and morning headaches. Was well until 1918 when she had a stroke involving vocal cords and right arm. She gradually regained the use of her arm and later her voice. She noticed that she had to get up at night to urinate from one to five time since the time of her stroke. Headaches, especially in the mornings have occurred during the past year and for the past few months she has been quite thirsty, and has passed large quantities of pale urine. She has always been healthy until the date of onset of her present illness. She is fairly well nourished, lungs are clear, heart not appreciably enlarged, no murmurs, blood pressure S/200, D/140. Marked dental sepsis, six apical abscesses and pyorrhea surrounding all teeth, tonsils buried and contain pus, no edema.

Urine, amber, sp. g. 1.028; albumen, negative; sugar 1.5%; no casts or pus, no diacetic or acetone. Ammonia 1.7 gm. in 24 hours. Mosenthal two-hour test for specific gravity. Variation 1.026-1.042 with 670cc. night urine. Chlorides 0.5%.

Blood urea, nitrogen, 10 mb. per 100 cc.; creatinine, 1.2 mg. per 100 cc.; blood sugar, 300 mg. per 100 cc.; phenolsulphonaphthalein, first hour, 15; second hour, 5; total, 20.

## Glucose Tolerance Test:

	Blood, mg. per 100 cc.	Urine, per cent.
Fasting.....	170	1.2
First hour .....	360	3.4
Second hour .....	400	3.8
Third hour .....	450	4.0
Fourth hour .....	380	2.8

August 8, 1921, Mosenthal variation, 1.008-1.014, albumen positive, sugar free. Blood sugar 130 mg.

September 2, 1921, Mosenthal variation, 1.008-1.014, albumen negative, sugar free. Blood sugar 120 mg.

November 1, 1921, Mosenthal variation, 1.008-1.016, albumen negative, sugar free. Blood sugar 115 mg.

November 1, 1921—Weight, 140. Teeth have been removed. Pain has left chest. Twenty-four-hour urine output 1500 cc. Blood pressure S/190, D/130.

Case No. 3522—Female, colored, age 60, weight 183 pounds, height, 5 feet, 5½ inches. Entered clinic August 24, 1921. Complained of loss of weight, nervousness, frequent urination, lumbar backache. Six months ago she weighed 245 pounds, has been getting up at night from one to five times to urinate. For past two months has been extremely nervous and lately has complained of general loss of vision. During past two months, has noticed rather distressing palpitation and slight swelling of ankles. She is slightly short of breath on exertion. She has always been well until her present illness.

We have a rather obese woman, well up in years. Reflexes normal. Throat, injected. Tonsils, enlarged and contain pus. Teeth, marked pyorrhea, two apical abscesses. Lungs, clear. Heart slightly enlarged to left, no murmurs. Blood pressure S/200, D/90, slight edema of both ankles. Urine 1.031-straw. Albumen, negative. Sugar 2.2% no casts, blood or pus. No diacetic or acetones. Ammonia 1.6 gm. in 24 hours. Mosenthal 2-hour test for specific gravity. Variation 1.028 to 1.045. Chlorides 0.4%.

Blood urea, nitrogen, 25 mg. per 100 cc.; creatinine, 1.9 mg. per 100 cc.; blood sugar, 400 mg. per 100 cc.; phenolsulphonaphthalein, first hour, 50; second hour, 15; total, 65.

November 26, 1921: Blood sugar, 295 mg.; creatinine, 16 mg.; blood urea, nitrogen, 14.01 mg.; urine, sugar free.

## Glucose Tolerance Test, August 24, 1921:

	Blood mg.	Urine per cent.
Fasting.....	250	2.6
First hour .....	420	3.6
Second hour .....	480	4.8
Third hour .....	530	4.8
Fourth hour .....	490	3.9



This patient has never had any sugar in her urine when her blood sugar was not over 280 mg. per 100 cc.

Case No. 22618—Male, white, age 53, weight 160, height 5 feet 9½ inches. Entered clinic January 5, 1922, complaining of shortness of breath, palpitation, failure of vision and dropsy. For the past 3 years he has had more or less frontal headache and has to get up from one to four times at night to urinate. During the past 6 months he has been complaining of palpitation and shortness of breath, at first, only on exertion but of late almost constantly. His vision has been rapidly failing and for the past 3 months he sees spots before his eyes and is quite dizzy. His feet and ankles have been swollen for about a year. Of late the edema has extended well above his knees. He had scarlet fever in childhood and always has had frequent attacks of sore throat and has had more or less trouble with his teeth. His pupils are small and almost fixed. His tonsils are large and contain pus. He has no devitalized teeth but had a marked pyorrhea. There are numerous moist rales throughout the bases of both lungs. His heart is markedly enlarged to the left and he has a distinct blowing systolic murmur, being loudest at the apex. His blood pressure is S/300, D/160.

The liver is tender and extends 3 finger-widths below costal margin. His legs are both markedly edematous.

Urine, reddish brown, 1.015. Albumen 0.2%. Sugar negative. Many R. B. C. Few pus cells. Many hyaline and granular casts. Diacetic and acetone, negative. Chlorides 0.3%.

Blood urea, nitrogen, 69.12 mg. per 11 cc.; creatinine, 9.2 mg. per 100 cc.; non-protein nitrogen, 105 mg. per 100 cc.; blood sugar, 112 mg. per 100 cc.; blood chlorides, 6.4 gm. per 100 cc. Plasma.

The cretinine determination was checked several times with same result.

#### Glucose Tolerance Test:

	Blood mg. per 100 cc.	Urine.
Fasting. . . . .	112	0
First hour . . . . .	241	0
Second hour . . . . .	220	0
Third hour . . . . .	270	0
Fourth hour . . . . .	333	0

#### DISCUSSION

The first case, obviously an advanced diabetes with hypertension, is interesting to me only because of her peculiar reaction to the 2-hour test for specific gravity. At first as you will remember the specific gravity was fixed within 9 points but at a high level. Later when she became sugar free she had a definite low fixation and as you know, low fixation of specific gravity with over 400 cc or night urine furnished at least presumptive evidence of kidney disfunction, however, with the evidence at hand I am unwilling to classify her as a nephritic.

The next patient has a relatively high fixation of specific gravity with quite a little sugar. Her blood urea nitrogen is somewhat elevated as is her creatinine, although her phthalein is about normal. At subsequent times she has showed a little albumen and a few hyaline casts. I think that with elevations in blood urea and creatinine especially in a high blood pressure case, we are justified in assuming some renal involvement, with or without albuminuria. I do not consider the mere presence of small amounts of albumen or a few hyaline casts absolute evidence of nephritis, they may result from early or beginning cardiac failure.

Of special interest in this case is the glucose tolerance curve, we notice her blood sugar level is almost double at the end of 4 hours, what it is in the fasting state and furthermore, when her blood sugar level is as low as 280 mg. per 100 cc. she is always sugar free, therefore, unless we explain this elevated blood sugar level without glycosuria, on a basis of damaged kidney function, I am at a loss for an adequate explanation. Of course, it has been suggested that some metabolic disturbance affecting sugar metabolism, might occur coincident with nephritis, but until some specific evidence is brought to light to prove such an assertion, I am inclined to believe that certain high blood pressure cases with some evidence of nephritis are unable to excrete glucose in their urine unless their blood sugar is at an abnormally high level, I therefore, consider that in some cases blood sugar determinations might serve as valuable aids in testing for kidney function.

The next case, an advanced interstitial nephritis with impending coma, corroborates this idea to a marked degree. Here we have abnormally high non-protein nitrogen, blood urea nitrogen and creatinine levels. It might be of interest to note that patients carrying above 3.5 mg. creatinine per 100 cc. rarely recover.

The fasting blood sugar is not high, but with the administration of 1.5 gm. glucose per kilogram, body weight, the glucose tolerance curve is suggestive in that the apex should be reached the first hour and a gradual diminution should occur during the other three hours with a fourth hour level at normal, between 60 and 110 mg. per 100 cc. I think the explanation of the prolonged elevation of blood sugar can be explained most readily on a basis of damaged kidney function. That the kidney is simply unable to excrete the added glucose in the time.

#### CONCLUSIONS

I have tried to select three high blood pressure cases, one with typical diabetes, one with diabetes and early interstitial nephritis and one of advanced nephritis, with the idea of showing the effect of deranged kidney function on glucose metabolism. I think, of course, that there is much to be learned about these problems and I realize that absolute statements are dangerous, especially in the light of our limited knowledge but I feel safe in assuming that in hypertension with failure of kidney function as evidenced by the ordinary tests in vogue, that we also have a failure in the part of the kidney to excrete sugar unless the blood sugar level is abnormally high, and that this elevated renal threshold for sugar is more apparent in those cases showing advanced nephritis than in the early cases.

#### Clinic of Mervin T. Sudler, M.D.

##### INGUINAL HERNIA

Case Report: Hospital Number 11326.

*History*—The patient presented for study and observation today is suffering from indirect inguinal hernia. His family history and personal history are without interest except as connected with his hernia on the left side. He is a farm laborer fifty-two years

of age. His trouble began twelve years ago while doing some heavy lifting. He felt something give in his lower abdomen and then discovered the swelling. Both at this time and later, it was painless. Usually, however, there are pain and soreness after such occurrences. The tumor gradually grew larger, progressing more rapidly while he worked. After three years, he began wearing a truss and has worn it almost continuously since that time. This swelling automatically disappears when he lies down and there has been no evidence of strangulation.

*Examination*—Patient is a well-nourished, well-muscled man. Extending from the left external inguinal canal is a tympanitic swelling about three inches long and an inch to an inch and a half in diameter. There is a distinct impulse on coughing. There is no evidence of inflammation and there is no pain upon manipulation. The entire mass is easily reduced.

*Operation*—The operation which we shall use on this case was suggested in 1890 by Bassini. The essentials of this operation are the dissection, ligation and removal of the sac and the transplantation of the cord between the aponeurosis of the external oblique muscle and the internal oblique muscle.

The sac in this instance is quite long and when held open shows the mesentery of the descending colon almost exposed. A beginning of the so-called sliding hernia has been made. In this case, the muscle is of a good red color, though thin. The prognosis is good. Twenty-day chromic catgut with interrupted stitches is used for the inner layer (internal oblique muscle and edge of Poupart's ligament). These stitches must be carefully placed because of the close proximity of the femoral artery, vein and nerve.

*Discussion*—Indirect inguinal hernia is a very common defect, occurring about three times as often in men as in women. According to the report of the Surgeon General's Office, upon examinations for admission to the army in the recent war, inguinal hernia was present in 4 per cent of all those examined, or in one out of twenty-five. In examining 2,000 male students at the University of Kansas, inguinal hernia was present in one student in forty-



three, or a little over two per cent, showing probably the better physique of college students in comparison to the average. The weakness of muscle and the presence of the sac as a congenital defect are the predisposing causes.

The present case is a typical case of indirect hernia. In order that we may have a clear idea of its anatomy, it is necessary to understand the embryology of the testicle. This structure has its origin in the vicinity of the vertebrae on the genital ridge. In the adult this corresponds roughly to the lower end of the kidney. It migrates from this location in the abdominal cavity through the abdominal wall to its adult location in the scrotum. In doing this, it takes as a covering the various layers of the abdominal wall through which it passes—the peritoneum becomes the tunica vaginalis; the internal oblique muscle, the cremaster, etc. This normal process may be arrested at any stage and the condition may vary between the extremes of a completely undescended testicle, remaining in the abdominal cavity, to the slightest prolongation of the peritoneum as a sac. Many of these patients tell us, however, that they were not “ruptured” until they lifted, strained, or were subjected to injury and date all of their trouble from this particular time. This may well be true and the weakness which has caused the hernia still be congenital. The lower edge of the internal oblique muscle acts as a sort of a natural truss and the sac remains empty until an unusual strain or posture pushes some of the abdominal contents into it, or the muscle atrophies with advancing age and it no longer acts in such a way as to close the mouth of the sac. An example of the first was seen in the case of a boy who was definitely ruptured at birth. A bandage was worn following the reduction of the hernia and he was considered cured and had no indication of anything abnormal until he was 11 years of age. Suddenly, while stooping over to pick up two buckets of water, the hernia re-appeared, a knuckle of bowel shooting down into the scrotum, protruding about three inches from the external inguinal ring. This was replaced with difficulty; but an operation was refused; and in the two years following,

during which he was under observation, there was no further trouble.

An example of the second was a man seventy-three years old who had long had a large hernia on the left side when there painlessly appeared on the right side not a small hernia, but one fully two and a half inches long.

Ferguson believes that an unusually short attachment of the internal oblique muscle to Poupart's ligament often accompanies these other defects and the essential object in the operation is to restore this attachment rather than transplant the cord, as in the Bassini operation. Other factors which influence the descent of viscera into these openings are: increased intra-abdominal pressure and increasing accumulations of fat in later years. In fact it is interesting to note that dieting almost to the verge of starvation was a part of the treatment in the middle ages.

Direct hernia, on the other hand, is always below the deep epigastric artery and therefore the sac is under the cord. It is the result of strain or injury on weak tissues and is a rupture, within the original meaning of the word. An example of this is a man over fifty years of age, of slight build, never very robust, who was in a runaway accident and was dragged by a horse nearly a hundred yards. When he took an inventory of his injuries, he found among other painful areas, a tumor about two inches in diameter over each external inguinal ring.

Another example is that of a negro who had made his living as a laborer, but who had a pyloric ulcer with a gradual stenosis and the consequent malnutrition. He noticed two gradually enlarging swellings at the external inguinal rings, accompanied by slight pain, particularly after work. These were direct hernias due to the strain and pressure against weakened tissues.

The diagnosis of hernia is usually very easy. It is only rarely that it can be confused with hydrocele, cystocele, or varicose veins. It is soft, tympanitic, if it contains intestines. Unless adherent, a very large per cent can be deduced. The enlarged outer ring can be felt and the impulse upon coughing, with the history complete the diagnosis. The symptoms vary. The large hernias are usually painless,

though other forms of discomfort are present. The smaller ones are often more painful and there is greater danger of strangulation. There is sometimes pain in the inguinal region, which may be mistaken for appendicitis. In certain cases, this is aggravated by wearing a belt. All that is usually found is a large external ring, but the cause is probably a smaller incipient hernia.

Strangulation, with intestinal obstruction, is the most serious complication and requires operation immediately. If surgical facilities are available it is a mistake to use any but the gentlest efforts at reduction. The symptoms vary in severity, depending upon whether the part strangulated is omentum or intestine and upon the length of time it has existed. A dark blue or black color, and a wet leather consistency indicate that the damage to the intestine is beyond recovery. A gradual increase in the brightness of the color and in the elasticity are indications that the intestines can be saved.

The operation for the relief of direct hernia is not so satisfactory as that of the indirect hernia and an analysis of the cases operated upon in the Johns Hopkins Hospital shows after a five-year period from eleven per cent to twenty-five per cent of recurrences, the larger figure representing the earlier operations.

In regard to the treatment of indirect hernia: Given an otherwise normal or nearly normal individual, it should be operated upon. It is, in fact, one of the most satisfactory operations, curing with the Bassini method approximately 98 per cent and the Ferguson 96 per cent of all cases. The mortality is very low, the statistics from the Hospital for the Ruptured and Crippled of New York showing about one death to six hundred operations. When the possibility of strangulation and the discomfort of a truss are considered, it seems curious that there are not more operations. A truss is by no means an innocuous piece of apparel when worn for a long time or tightly, as it produces an atrophy of the internal oblique muscle. It then becomes pale and flabby and can scarcely be distinguished from fascia. In my experience there have been two recurrences in persons under 65

(both operations were performed under local anesthetic). The remainder were over sixty years of age and in no instance had the patient worn a truss less than fifteen years. Several cases were operated upon a second time and in every instance the internal oblique muscle had split just above the internal ring and the line of incision was intact.

A local anesthetic is very often desirable. In fact, it is the method preferred in all older or feeble patients, but there is no doubt but that there are slightly more recurrences after it than after a general anesthetic. However, when one considers the safety and ease with which operations can be performed upon old or weak individuals having heart or kidney lesions, or where strangulation has occurred with its dangerous symptoms, it is a method which commends itself to all careful surgeons.

Another cause of recurrence is the straining at stool without proper pressure from without. The seats on our toilets as ordinarily constructed are too high; and for several months following operation, it is advisable for a patient to use a box or other object to raise the feet so that the thighs press against the abdomen.

Unless there is some constitutional defect, a truss should not be considered. It is uncomfortable, often ineffective, and not wholly harmless. The operation is less dangerous than the disease; and when one considers how high is the percentage of cures, it should be regarded as one of the most satisfactory operations of surgery.

### Clinic of Dr. C. B. Francisco

#### RELAPSED CLUB FEET

This is a very good chance to review some of the points that we discussed last term when we were on the subject of Congenital Club Foot, and we will hurriedly mention some of the important facts in connection with the management of these cases.

Question. What is the scientific name of club foot?

Student's answer. *Talipes equino varus*.

Q. When should the treatment normally begin?

A. When the baby is two weeks old.

Q. How would you manage a case from



the time treatment began until the child was discharged as cured?

A. I would manipulate the foot, correcting it as much as possible without an anesthetic and apply a plaster cast, leaving it on for two weeks, then remove it and again manipulate the foot, hoping to overcorrect it at this time and apply another cast, removing it in about two weeks and then attempting to manipulate the foot in extreme overcorrection and applying another cast for two or three weeks, then removing it and leaving it off, instructing the mother to stretch the child's foot around several times daily and encouraging the child to use its muscles by playing with its toes. If a tendency to relapse developed a night splint should be worn for a time. When the child begins to walk braces should be applied which hold the foot in moderate overcorrection and worn day and night for a few weeks then days until the child has the power to voluntarily overcorrect the foot and stand on it properly.

Q. What principles are involved in the discussion we have just heard of the treatment of this conditions?

A. Just two—muscle balance and bone moulding.

Q. What moulds the bones?

A. Weight bearing only.

Very well. We have a chap nearly 3 years old that we treated here in the clinic for about one year, beginning when he was 3 months old, but whom we have not seen for about fifteen months. You can see that he has badly relapsed, his feet being in extreme equino varus. At the time he left we supplied him with braces which have been practically worn out and the mother states the child only began to walk about two months ago.

Q. What principle do you think we failed in?

A. Muscle balance.

No. I think we had the muscles fairly well balanced as indicated by the record here but the trouble was he outgrew his braces before he began to walk, and as only weight bearing in proper position will remould the bones you can conclude that he never had the chance to correct his bony deformity, however, if you

fail in either balancing the muscles or moulding the bones you fail in the cure.

You naturally ask why was he not returned sooner and in reply will say that this mother lives in Oklahoma and it is very inconvenient for her to come up here and remain for an indefinite time so I advised her by letter not to come until the boy began walking.

Our problem is just the same now as it was in the beginning but we will be obliged to attack it a little differently, in that his tendons are too strong to stretch so that we will have to give him an anesthetic, which he has been prepared for, and manipulate his foot. Now that he is under the anesthetic we will attempt to correct his varus deformity, and you can observe that his tissues are fairly resistant and a great deal of force is necessary to get his foot around. We are trying to push his astragalus backward and at the same time bring the external malleolus forward, this is often rather difficult to do, and we must also mould his tibia, turning it outward so as to correct the tendency of toeing in. His foot is now very well under him but we cannot stretch his tendo-achilles so will divide it subcutaneously with this tenotome, as it is divided the foot comes up in dorsi flexion. We will proceed in the same way with the other foot and then apply casts with the feet overcorrected.

Q. How can we tell whether or not the casts are too tight?

A. By observing the color of the toes, if they are pink the circulation is all right.

That is correct, always instruct the mother or nurse to watch the toes carefully and tell them to remove the cast if the toes get blue.

Q. What are the rules about operating on club foot?

A. Never operate under one year of age; divide only soft parts between the ages of one and five, after five it may be permissible to do bony operations. I think those are good rules and while you may wish to vary them somewhat usually you should observe them. Sir Robert Jones of England goes so far as to say "You should never do a bony operation if you wish to secure the best possible results in a congenital club foot." The objection to removing portions of the bones that tend to

block correction of the foot is that all of the bones enter into the deformity and retention of the foot must be maintained until the bony deformity is corrected so that not much time is gained and as Fiske has well said "Function presupposes structural integrity, therefore the ultimate function will be in proportion to the normal structure."

This case will be allowed to walk just as soon as he wishes as this will begin the remoulding of his bones and braces will be supplied in about three months and will be attached to celluloid foot forms which hold the feet in proper position and will be continued as long as necessary.

—R—

The Western School of Electrotherapy will hold its fourth annual session at Little Theater, Kansas City, April 17, 18, 19, 1922. Each previous session of the school has been an unqualified success in the dissemination of information in the use of physical modalities in medicine, and this year promises to be better than ever.

Dr. Grover will lecture on the fundamentals of electricity each morning at 10 o'clock. Every day from 2 to 5 o'clock will be devoted to clinical demonstrations. Diseases and conditions amenable to physiotherapy will be briefly described in which the physiological indications for the use of the different modalities and how and when to apply them will be fully explained. Demonstrations will be made on actual cases in so far as clinical material is available. In absence of material each step of treatment technic will be fully explained with demonstration of apparatus.

During the Clinical Sessions time will be given for brief discussion of each demonstration.

Dr. A. J. Pacini, formerly in charge of the X-ray Department of the United States Public Health Service, will be present during the in medicine. He will hold clinics for the demonstration of this important modality in many diseased conditions.

Dr. Frederick H. Morse, ex-president of the American Electrotherapeutic Association and well known authority in direct and sinusoidal currents, will be with us again this

year and give clinical demonstrations of these conditions.

Dr. T. Howard Plank, one of the prominent workers in the American Electrotherapeutic Association and a recognized authority on actinic rays, will be with us again this year and give clinical demonstrations of high-frequency currents in surgery.

The Exhibit Hall will contain the latest equipment and will be well worth a trip to Kansas City.

Program will be ready about March 15.

For program and information, address Dr. Chas. Wood Fassett, 115 East Thirty-first St., Kansas City, Mo.

—R—

A committee of the A. M. A. Section on Ophthalmology reports to the Council on Pharmacy and Chemistry on the clinical use of butyn in operations on the eye, nose and throat. The committee finds butyn preferable to cocaine as an anesthetic in operation on the eye. One member of the committee also reports favorably on its use in operations on the nose and throat. As a result of the clinical and experimental use of butyn, the committee arrives at the following conclusions: 1. It is more powerful than cocaine, a smaller quantity being required. 2. It acts more rapidly than cocaine. 3. Its action is more prolonged than that of cocaine. 4. According to our experience to date, butyn in the quantity required is less toxic than cocaine. 5. It produces no drying effect on tissues. 6. It produces no change in the size of the pupil. 7. It has no ischemic effect and therefore causes no shrinking of tissues. 8. It can be boiled without impairing its anesthetic efficiency.—(Jour. A. M. A., Feb. 4, 1922, p. 345.)

—R—

Moynihan (Lancet Feb. 11) states that he has performed 118 gastrectomies for gastric ulcer since 1909 and there were but two deaths or a mortality of less than 2 per cent. In one case a secondary operation was required. Only one case has since had any symptoms of digestive discomfort. In none has there been a development of carcinoma or a return of ulceration. In the same period he has operated upon 651 cases of duodenal ulcer with three deaths.



# THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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## Dr. Gray Treasurer

A meeting of the Executive Committee of the Council was held in Kansas City March 3 for the purpose of selecting a successor to Dr. Munn. The Executive Committee is empowered to act for the Council in all cases of emergency. Dr. Geo. M. Gray, of Kansas City, was appointed by the Committee to fill the vacancy until the regular annual meeting of the Society.

The House of Delegates will no doubt approve the wisdom of this appointment by the unanimous election of Dr. Gray at the annual meeting.

—R—

## The Stormont Library

It is possible that a few men in the Society know that there is quite a large number of books in a section of the State Library which constitute what is known as the Stormont Medical Library, because it was founded and endowed by the widow of Dr. Stormont who was one of the most prominent medical men in the State. The gift of this library was made to the Kansas Medical Society after provision had been made for its housing and care by the State. The endowment provides a fund of several hundred dollars a year for the purchase of new books. As a supplement to this endowment a certain sum was donated by Dr. S. E. Sheldon, the interest from

which is available for the needs of the library. A considerable number of books has also been donated so that in number of volumes it is worthy of notice.

It has been many years since this donation was made by Mrs. Stormont. For several years it was a matter of considerable interest to the Society. A permanent committee was appointed and known as The Committee on The Stormont Medical Library. This committee made an exhaustive report every year. Two members of the committee died and the remaining member was made the permanent committee. For a few years reports were made regularly, but the interest waned and reports from the Stormont Library were omitted or not requested and finally the committee was entirely ignored and no longer appears in the list of standing committees.

When the library was first established it was claimed by members of the Society living at a distance from Topeka that it rendered them no service, since they could not come to the State House whenever they needed to consult a library. On the strength of these complaints it was arranged that any member of the Society could secure any book from the library by writing to the librarian for it. The members of the Society did not avail themselves of this privilege to any great extent and finally it has been said by those in charge that very rarely does anyone request a book from the library and very rarely does anyone come to the library to consult the books.

In part this lack of interest may be explained by the fact that the State Library no longer issues a catalogue and one must write to the librarian to learn if the book he requires is there.

The Stormont Medical Library is a valuable asset to the Society and it is unfortunate that it has apparently lost interest in it. It is time that the House of Delegates or the Council wakes up to the fact that this one of our possessions needs some very earnest attention. That some other arrangement for its care and upkeep should be provided is very evident, but what arrangements should be made cannot be determined without considerable investigation. First it will be necessary

to know if Mrs. Stormont's gift was conditioned on the library being placed in the custody of the State. If such is the case it would seem very desirable that a medical man should be added to the corps of assistants of the State Librarian so that these medical books might be properly catalogued and proper additions be made to the library. If it is possible to remove the library from the custody of the State and place it more directly under the care of the Society, it remains to determine a better place for it. It has been suggested that if it were possible to do so these books should be added to the Library of the School of Medicine. Here at least the books would be cared for, catalogued or card-indexed and the library would be kept up to date. And here arrangements could be made to secure whatever extracts or data one might require from those in charge.

Under the present conditions the library is serving no good purpose. It is a valuable asset that brings no returns. The annual income from the endowment must be expended for additions to the library but it seems futile to spend good money for books that no one consults.

— R —

### **In Memoriam—Dr. Lewis Holland Munn**

Read before the Shawnee County Society, March 6.

Dr. Lewis H. Munn, a member of the Shawnee County Medical Society from its inception, and its treasurer, died at his home in Topeka, February 24, 1922.

It is highly fitting that his professional brethren should pause for a few moments at this time, and by way of tribute to his memory, utter some words of appreciation of those outstanding qualities of head and heart by which he will be best and longest and most kindly remembered.

Dr. Munn lived in this community for many years, and served it with all the best energies of his life. Coming here a young man, he became identified, from the first, with his city's best interests and with the best ideals of his profession. There are few of his colleagues left who were here before him, and he has not been surpassed by any, old or new, in devotion to the high calling of medicine.

Along with great native ability and high

acquirements, he possessed a strong personality, and he made himself felt as a steady, guiding force in the various activities of life to which he lent his interest.

He had the faculty of making strong personal friendships, and the attachments he thus formed were seldom broken. He happily surrounded himself with a large group of men, many of them much younger in years than himself, and the men thus favored gained much by their intimate contact with his sane and stable nature, and he, in turn, was inspired and rejuvenated by their enthusiasm and vigor. While perhaps some of his most intimate friendships were with men of his own age, he nevertheless showed the keenest enjoyment in his association with colleagues much younger than himself, and thus, in accordance with the old adage, was able to keep himself ever young in spirit.

No man enjoyed more than he the companionship of his professional brethren. He, of course, did not always find himself in agreement with them. Indeed, some of us were made to feel, at times, the acuteness of our disaccord with him. And sometimes we may have thought him abrupt, and even harsh, in his expressions of opposition to our cherished theories or plans. But withal, he was a frank and candid antagonist, scornful of tricks and schemes, and thus compelled the respect of his opponents. And it may be added that his position was not infrequently sustained by events. However persistent he may have seemed in his adherence to his convictions, he was not vindictive or stubborn, and these human traits of his character helped to endear him to those who knew him well.

He was a good citizen—public spirited and generous in all worthy causes looking to public and individual welfare. He liked to help those who needed help, but never ostentatiously. He made no parade of his benevolence. Nor was he boastful of his deeds of professional skill, but, on the other hand, he was always big enough to tell about his mistakes.

He had his pet hobbies, one of which was the splendid hospital which he did so much to build and develop, and which was so constantly in his thoughts. This was the apple of his eye, and is to be a monument to his



memory perhaps more than to that of any other person. Only a month ago that hospital was the host of this society, and Dr. Munn was the central figure there of a large assemblage of our members, and perhaps the happiest one among them. It was his farewell party, as it turned out. It is painful to realize that his familiar and genial presence is to be hereafter wanting from our gatherings.

We had noted, of late, that the finger of time, or fate, or whatever power it is that works changes in human forms and faces, was subtly doing its work on our friend. He was becoming a little thinner, a little paler, a little more grave and reticent and introspective. Perhaps he had some vague presentiment of his approaching end. At any rate, the end came, and it came as he no doubt would have wished it to come, and as we doubtless should all wish it to come to us, at last, if we could have our way.

"Home is the sailor, home from the sea,  
And the hunter home from the hill."

Your committee, who subscribe themselves below, would conclude this memorial sketch by proposing the following:

RESOLUTION: That the Shawnee County Medical Society, in regular meeting assembled, expresses its deep sorrow and acute sense of loss in the death of Dr. Lewis H. Munn, and extends it sincere sympathy and condolence to the bereaved wife and relatives.

O. P. DAVIS,

W. E. McVEY,

W. M. MILLS,

March 6, 1922.

Committee.

### CHIPS

Too much knowledge (in medicine) is as dangerous as too little.

"A short life and a merry life." It can't be did. "What makes life short makes life miserable."

Oliver Wendell Holmes is given the credit for coining the word anaesthesia.

Lucy Page Gaston says, "Analysis shows sufficient furfural in one cigaret to deliver a jolt equal to two ounces of whisky."

A movie queen has had her back insured, presumably to stiffen her back bone for the anticipated moral readjustment of the biz.

Chase in the "Ungeared Mind" says that, "the time in life in which the largest number of persons break down mentally is between 25 and 35 years."

The average man has no definite object in life. At this age they begin to see life as it is and not having a goal in view to stimulate them over this period they lack the stamina to buck the pressure. They are as a rudderless ship at sea in a storm which soon founders on the breakers.

Moral: To keep out of the bug house and live a successful life a man must have a specific definite object in view.

One on the Judge. O'Brien was having hard sledding (before prohibition) on a slippery pavement. He slipped and sat down with force in front of a judge who happened to know him.

"O'Brien," said the Judge, "sinners stand on slippery ground."

"So I see, Judge," answered O'Brien. "But it's more than I can do."

An enterprising dealer in electric wares hangs out this sign: "Don't Kill Your Wife With Hard Work. Let Our Washing Machine Do the Dirty Work."

The Binet-Simon measuring scale of intelligence classifies an idiot with a mentality not beyond the normal child of three years; an imbecile with a degree of mentality that does not go beyond the normal child of seven years; and a so-called moron possesses a mentality that does not go beyond twelve years.

Statistics show that cancer is increasing, and the mortality is greater in the northern states than in the southern. Massachusetts having a death rate from cancer of 98 per 100,000 and South Carolina 45.9 per 100,000. The differences may be partly accounted for in the accuracy of the respective statistics.

Clonorchiosis is a parasitic disease. The parasite or small worm is found in the liver and bile ducts. It is said to be caused by "raw fi-h or f.ish not thoroughly cooked which

have been infected by freshwater snails first eaten by the fish." The disease is of oriental origin, being practically unknown in the United States. Thirty-two Chinese merchants who arrived recently in the United States and have the disease are now quarantined and are subject to continuous treatment and daily inspection by the health authorities in California.

Keep away from the dentist if you have teeth. The "Wisconsin supreme court has reversed the judgment of a circuit court which awarded \$3,500 damages to Isabel Thorne who had sued Dr. L. A. Wandell for extracting her teeth against her will. The supreme court decided that in the exercise of his professional duties a dentist may remove a patient's teeth without the patient's consent."—(Pathfinder.)

United States Hospital educational work for disabled soldiers of the World War in the twelfth district will be put under the medical branch of the service instead of, as it is now, under the rehabilitation department. The twelfth district includes the states of California, Nevada and Arizona. Thirty-five thousand men are concerned. There are fourteen buildings and sixty-five teachers. Therapeutics will be given more attention in these schools than in the past.

P. Watson Williams (London Lancet 2-18) discussing headaches, says: "The history of the case may reveal many facts which point to a source of recurrent infection; headache or heaviness, recurring sore throats, muscular rheumatism, rheumatoid arthritis, gastro-intestinal catarrh, appendicitis, are so frequently associated with a chronic sinus infection that their interdependence is sometimes hardly open to doubt. Although these incidents in the patient's life may have occurred long previously, one must remember that a sinus infection may be of some years standing and a constant source of ill-health, without seriously arresting the patient's notice."

One time Eli failed to get there although he had the goods in him.

Six little tots, ranging in age from 4 to 6 years, were visiting their grandmother. The

jelly she had intended for their lunch disappeared before lunch hour.

Grandmother got the children in line and asked "which one of you took the jelly?" Each one denied any knowledge of the jelly. Little Eli, the 6-year-old, denied it bitterly.

"Well!" said grandmother, "tomorrow is Sunday and we will all go to church and I will have the preacher tell me who took the jelly." Eli piped up, "I'm not goin'."

A dependable treatment in cases of pylorospasm or an uneasy painful stomach and intestinal digestion is the use of tincture of belladonna. Liquid petrolatum may be given as an adjuvant. The two agents are harmonious and work in sympathy (mechanical). The belladonna soothes the irritable terminal nerve filaments and the mineral oil lubricates and the organs do their work without friction.

The only unpleasant effect of an overdose of the oil is silent seepage.

Van Leeuwen and Varekamp report results in the treatment of certain cases of asthma and hay fever with tuberculin (Lancet 12-31). Observing an increased intensity of allergic reactions in a patient after developing tuberculosis, further investigations were made as to the relationship between bronchial asthma and sensitiveness to tuberculin. Many asthmatic cases were found to show positive v. Pirquet reactions and were treated with small repeated doses of tuberculin. Eighteen patients were completely cured. Four patients were relieved of their acute attacks but a chronic bronchitis remained. Five patients were improved but had some dyspnoea due to bronchitis or weak heart and had occasional attacks of asthma, not severe. One case was not improved by the tuberculin treatment.

Recent investigations by Eagleton and Glenny show that an avirulent diphtheria bacillus does not cause diphtheria and it does not change in the human throat to the virulent variety. From a carrier who first yielded virulent and then only avirulent bacilli, cultures were made with both varieties. In more than 200 colonies from the subcultures of the two strains, the virulent and the avirulent bacilli remained true to type. It has also



been shown that the presence of avirulent bacilli does not confer immunity.

Is vaccination against pneumonia a success?

Dr. Herman N. Briggs, state health commissioner of New York made the following report, on a study of tests of the serum treatment for pneumonia, extending over a year, in which 19,000 patients in state institutions were vaccinated against pneumonia.

He says, "Pneumonia developed in the vaccinated group. There were no harmful effects nor were there any satisfactory or definite conclusions." Owing to the extraneous matter in all serums, making their use dangerous to life, and since no satisfactory results have been definitely proven, the evidence is not favorable to the promiscuous use of serum treatment in pneumonia. In fact the general and almost promiscuous use of serum injections for such a diversity of diseases when positive benefit has been proven in so few diseases, is not commendable and does not add prestige nor is it proof of wisdom on the part of the regular medical profession as a whole to practice the use of serum injections so generally. Better the slogan "make haste slowly" and use the injection treatment only when scientific men who are prepared to experiment have proven a serum safe and a success.

There is too much in the new medicine that reminds one of what Lincoln said of a young lawyer's speech. "That which is new in it is not true, and that which is true is not new."

The existence, says the Public Health Service, in a recent report by Ida A. Bengtson has been demonstrated of an anaerobic organism producing a soluble toxin which affects animals in a manner similar to that of the botulism organism but which fails to be neutralized by polyvalent botulinus antitoxin. Study of the organism, as found in the larvae of the green fly *Lucilia caesar* sent to the Service, indicate that it differs markedly from the botulinus isolated in the United States, and possibly is more nearly related to the European type described by von Ermengen in 1912, though it differs from this in important respects. Tests on laboratory animals by inoculation and by feeding caused death in

from 5 to 71 hours. The most striking pathological result was, as in botulism, the congestion of the blood vessels of the brain and meninges. Efforts are being made to produce an antitoxin. The suggestion that the organism of the disease causes limberneck in chickens has not yet been demonstrated.

As cacodylates have been found practically worthless in the treatment of syphilis, mercuric cacodylate must be considered as merely an administration form of mercury. It contains but one-half as much mercury as mercuric salicylate. The two preparations cannot be compared with each other as to local or general action for the reason that the cacodylate is soluble while the salicylate is practically insoluble. The cacodylate has to be administered daily to maintain adequate action. Mercuric salicylate is a favorite drug because of the argument that, being insoluble, it forms a depot of mercury in the tissues so that a week's dose may be administered at one time. To keep the patient under a continuous mercurilization as would be secured by the ordinary dose of 0.10 gm. of mercuric salicylate given once a week, six doses of 0.04 gm. of cacodylate would have to be given; in other words, a daily dose excepting Sunday. The pain and induration induced by mercuric salicylate is the price the patient must pay for the convenience of weekly administration.—(Journ. A. M. A., Feb. 11, 1922, p. 452.)

Iron has so long been administered in some form or other in the treatment of anemia that one might well suppose that its function in the regeneration of blood had been clearly determined. This is far from being the case. Last year, Whipple, and his associates reported that iron given as Bland's pills had no influence on the rate of blood regeneration in secondary anemia produced in animals. They reported that there is some experimental evidence for the administration of blood in secondary anemia, but state that whole red cells or hemoglobin given by mouth in the form of a dry powder do not appear to influence profoundly the blood regeneration curve. Their experiments show that hemoglobin has a distinct influence on blood regeneration, but not sufficient to warrant its use in

uncomplicated secondary anemia in view of the favorable action of meat and other diet factors. Musser has studied the effect of inorganic iron in a type of anemia representing more closely what is seen in clinical medicine. He found that ferrous carbonate failed to produce any alteration of the experimental hemorrhagic anemias. All of the more recent evidence indicates that the iron is of paramount importance in red blood cell regeneration.—(Jour. A. M. A., Feb. 18, 1922, p. 512.)

During February the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Persson Laboratories: Bacillus Coli Antigen (No. 50)—Persson; Furunculosis Vaccine Mixed (No. 37)—Persson; Gonococcus Antigen (No. 47)—Persson; Staphylococcus Aureus Antigen (No. 49)—Persson; Streptococcus Antigen (No. 48)—Persson; Pneumonia Vaccine (No. 36)—Persson.

Powers-Weightman-Rosengarten Co.: Novarsenobenzol—Billon.

G. H. Sherman: Whooping Cough Vaccine—Sherman; Mixed Typhoid Vaccine—Sherman; Acne Staphylococcus Vaccine—Sherman.

Winthrop Chemical Co.: Alypin.

Agninaldo's niece is studying surgery in the United States. She is "sho" a niece of her uncle. The Islands are preparing the surgical route for independence.

A woman doctor claims that "athletic women seldom have sons, the offspring, if any, usually being girls. Physical culture teachers being incapacitated for motherhood." Too much rough neck?

In a report recently sent out from the Health Department of Albany, New York, we find the following statement:

"Subsequently those who are not proven by this test (Schick) to be immune may be protected for life by injections of a combination of toxin and antitoxin." This is somewhat modified in the following from the same article: "Diphtheria is today an absolutely preventable disease for we have found that the

protection once established in a child by the method developed in New York City Health Department Laboratories has continued for at least eight years and without doubt is permanent throughout life."

All six of the laboratory workers of the U. S. Public Health Service who have been studying tularaemia, a disabling sickness of man which has been known, particularly in Utah, for the last five years, have contracted the disease, two of them being infected in the laboratory in Utah and the other four in the Hygienic Laboratory in Washington. Such a record of morbidity among investigators of a disease is probably unique in the history of experimental medicine.

Two of these workers are physicians; one is a highly trained scientist; and the others are experienced laboratory assistants. One of them contracted the disease twice, once in the laboratory in Utah and again, two years and five months later, in the laboratory in Washington.

In these workers the disease began with a high fever, lasting about three weeks, and was followed by two months of convalescence. The disease has few fatalities, its chief interest arising from the long period of illness which it causes in mid-summer, when the farmers of Utah are busily engaged in cutting alfalfa and plowing sugar beets.

The studies into the cause and transmission of the disease show it to be due to a germ, *Bacterium tularensis*, which is conveyed by six different insects: the blood-sucking fly, *Chrysops distalis*; the stable fly, *Stomox calcitrans*; the bedbug, *Umx lectularius*; the squirrel flea, *Ceratophyllus acutus*; the rabbit louse, *Haemodipsus ventricosus*; and the mouse louse, *Polyplax serratus*. Only the first four of these are known to bite man. It appears possible that the germ may also enter through unbroken skin; for instance, that of the hands.

Dr. Mayer Shoyer, of Soldier, suggests the following method for reducing subcoracoid dislocations of the shoulder, especially in obese people:

"Under ether anesthesia slight traction is made on the extended arm, which is carried



outwards from the body about 45 degrees, the hand in full supination; the arm is then carried toward the body. As the arm reaches the side or is somewhat across the body, the supinated hand is pronated; this reduces the dislocation, the flexed arm is laid on the chest. Absolutely no force is used and the method is extremely simple. With this method it would be very difficult to fracture the bone or injure the brachial plexus."

The following sketch of Dr. Norman Bridge whose paper we publish in this issue was supplied by Dr. J. E. Minney.

"Dr. Norman Bridge is a retired physician, capitalist and philanthropist in Los Angeles. He is a typical medical gentleman of the old school of physicians. Although having survived the allotted time of man, his mind is active and alert. It is one of those rare mentalities that carries with it the old fashioned equine sense of the past, retaining the good and the true and also a clear vision and comprehension of the needs of the present. A workable, safe and trustworthy guiding present mindedness. A holding fast to the essential and with ability to point out and to avoid the quicksands so liable to engulf or retard the progress of medicine at the present time. Keeping the brakes set in order to control the speed on the grade."

The annual meeting of the Arkansas Medical Society to be held at Little Rock, May 17-19, will be a "homecoming meeting" and the officers of the Society are anxious to have all old members, now practicing in other states, in attendance at this meeting. Special efforts will be made to entertain the home-comers.

## SOCIETIES

### Program for Lyon County Medical Society

January—Subject, "Tuberculosis," Dr. J. B. Brickell. Discussion: Dr. F. A. Eckdall, Dr. E. E. Edwards.

February—Subject, "Splanchnoptosis," Dr. A. F. Higgins. Discussion: Dr. W. D. Hunt, Dr. C. L. Patton.

March 7—Subject, "Diseases of the Blood." out of town Physician.

April 4—Subject, "Symposium on Diabetes Mellitus." Diabetes in Adults: Dr. J. M. Par-rington; Diabetes in Children: Dr. A. Beam; Eye Symptoms: Dr. D. F. Longenecker.

May 4—Subject, "Osteomyelitis," Dr. C. W. Lawrence. Discussion: Dr. O. J. Corbett, Dr. W. F. Neinstead. Subject, "Endocervicitis," Dr. M. W. Woodhull. Discussion: Dr. F. Focannon, Dr. A. E. Titus.

June 7—Subject, "Endocrines," Out of town Physician.

July 4—Subject, "Symposium on Bronchial Asthma," Adults: Dr. F. Lose; Children: Dr. A. W. Corbett; Pathology of Ear, Nose and Throat in relation to Bronchial Asthma: Dr. M. T. Capps.

August 4—Annual Picnic.

September 7—Subject, "Prostatectomy," Out of town Physician.

October 3—Subject, "Strabismus," Dr. C. S. Trimble. Discussion: Dr. M. T. Capps. Subject, "Glaucoma and Iritis," Dr. W. T. Grove. Discussion: Dr. W. B. Granger.

November 7—Subject, "Occipital Posterior Position," Dr. D. L. Morgan. Discussion: Dr. Odell Williams, Dr. J. F. Shelley. Subject, "Extra-uterine Pregnancy," Dr. F. Focannon. Discussion: Dr. T. O. Brown, Dr. C. W. Lawrence.

December 5—Annual Election of Officers. Subject, "Correction of Deformities in Children," Dr. O. J. Corbett. Discussion, Dr. H. W. Manning, Dr. C. F. Harris. Subject, "Tubercular Joints," Dr. J. Hinden. Discussion: Dr. J. B. Brickell, Dr. J. M. Winegar.

### Lincoln County Society

The regular meeting of the Lincoln County Medical Society was held at Lincoln, January 12, in the City Hall. On account of the weather a full attendance was not present. The dentists have been represented in our last two programs, which has met the approval of all the members.

Following the afternoon program the members and their wives, with the dentists and druggists and their wives as guests, met at the Windsor Hotel where a banquet was served at 7 o'clock. Covers were placed for twenty-four.

Following the banquet a business meeting

was held and last year's officers were re-elected this year.

The Society will have a clinic as a part of their program the coming year. Dr. J. M. Sutton was appointed to arrange for this year's program.

MALCOLM NEWTON, Sec.

### Stafford County Society

The society met in St. John at 2:30 p. m. The following were in attendance: W. L. Butler, J. C. Butler, W. S. Crouch, T. W. Scott, Stafford; M. M. Hart, H. H. Miner, Macks-ville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John. The society received an invitation from the Barton County Society to a meeting February 15, at Great Bend at which a moving picture on Obstetric Complications would be exhibited. Dr. L. E. Mock read a paper on Scarlet Fever that elicited general discussion. Dr. J. C. Butler, Stafford, will read a paper on some surgical subject at the March meeting.

J. T. SCOTT, Sec.

### Reno County Medical Society

The regular meeting held at Nickerson, Tuesday evening at 7 p. m., February 7, 1922, after a dinner served by the Reno County High School D. S. Department, also some excellent readings given by the Dramatic Art Department.

Dr. W. F. Schoor had charge of the meeting.

Dr. Frank G. Pedley, State Epidemiologist, gave a most interesting paper on the Shick test and use of toxin antitoxin in diphtheria. The paper was followed by a general discussion in which it was brought out that some severe reactions develop especially in adults from the Shick test. The reason for this being that the toxin in these tubes is in such minute quantities that a very slight error is easily possible in these minute measurements, and this material is extremely toxic.

Also some deaths were reported from the use of toxin antitoxin when this product was first put upon the market. The reason probably being due to the toxin not being neutralized by a proper amount of antitoxin. But this product is now properly standardized and tested, and re-tested by reliable biological

houses so that this unfortunate result may not happen again.

Under the discussion of reactions from anti-toxin. Martin Dupray related that the possible causes for these reactions lies in a small quantity of filterable products of bacterial growth, not necessarily pathogenic bacteria, contained in these antitoxins which on account of the process they must go through in manufacturing is unable to avoid.

C. D. McKEOWN, Sec.

### Decatur-Norton County Society

The annual meeting of the Decatur-Norton County Medical Society was held at the Commercial Club Rooms at Norton, Kan., Thursday afternoon, January 19, 1922.

Meeting was called to order by Dr. F. H. Smith, of Goodland.

Minutes of the last meeting read by the Secretary, and approved.

Members present, Doctors Beckner, Smith, Hunter, Kennedy, Cole, Lathrop, Tinney and Virden.

The following program was rendered: Enucleation vs. Amputation of Tonsils, E. J. Beckner. A general discussion of this subject was entered into by Doctors Lathrop, Kenney, Hunter and Kennedy, and Major Conway.

Dr. F. H. Smith gave his annual address on Public Health Matters, which was roundly applauded and generally discussed by all members and some of the laymen.

The Secretary then made his report, which showed the society in good shape, with 39 active members for the past year. Two meetings were held with an average attendance of 22½.

Moved and seconded that the President appoint a committee whose duty shall be to collect all articles appearing in public press of the vicinity derogatory to the medical profession or tending to instill into the public mind erroneous doctrines pertaining to medicine and the treatment and etiology of disease, for the purpose of answering and explaining these things for the benefit of the public and seeking to thereby educate it in more correct lines of thinking.

Secondly, it shall be the duty of the committee to obtain and publish articles that will



tend to familiarize the public with the great names in medicine and with their achievements for the common good, such as the investigation, at the cost of martyred lives, of yellow fever and typhus and the like, the achievements of Pasteur, Jenner, and other pioneers in medicine and of the numerous lives that must have been saved as a result of their efforts.

The following officers were then elected for the year 1922: Dr. Wm. C. Lathrop, Norton, President; Dr. E. J. Beckner, Goodland, First Vice President; Dr. F. D. Kennedy, Norton, Second Vice President; Dr. C. S. Kenney, Norton, Secretary; Dr. C. W. Cole, Board of Censors; Doctors F. H. Smith and C. W. Cole, Delegates.

Petitions of Dr. A. A. Allen, of Colby, and Dr. Jennie McCullough, of Goodland, and Dr. Fuller, of Norcatur, received and passed by the Board of Censors; and by vote of the members present they were duly elected members of the Society.

Meeting adjourned.

C. S. KENNEY, Sec.

### Shawnee County Medical Society

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, March 6, at the Elks club.

The president appointed the following committee on arrangements for the meeting of the Golden Belt Society April 6:

R. B. Stewart, Chairman; K. A. Menninger, W. D. Storrs.

Dr. M. B. Miller was elected treasurer to fill the unexpired term of Dr. L. H. Munn, deceased.

Resolutions on the death of Dr. Munn were adopted and copy of same appear in another part of this number.

EARLE G. BROWN, Secretary.

### DEATHS

Arthur Whitting Evans, Independence, age 58, died at the Research Hospital, Kansas City, Mo., January 14, 1921, from chronic nephritis. He was graduated from the Hahnemann Medical College and Hospital of Chicago in 1892. He was a member of the Kansas Medical Society.

James I. Douthart, Pratt, aged 78, died at Long Beach, Cal., January 25, 1921. He was surgeon for the Rock Island Railroad.

Charles W. Ewing, Olathe, aged 60, died, January 17, 1921, from heart disease, at Kansas City. He was graduated from the Jefferson Medical College, Philadelphia, in 1888.

Robert E. Massey, Topeka, aged 60, died in a local hospital from pneumonia. He was graduated from the Kansas Medical College, Topeka, in 1898.

John W. Murray, Emmett, aged 59, died, January 10, 1921, from biliary calculi. He was graduated from the University of Louisville, Ky., in 1886.

—R—

### The St. Louis Meeting of the American Medical Association

The arrangements of the St. Louis profession for the meeting places for the session of the A. M. A., which is to be held in their city May 22-26 next, are singularly fortunate and convenient; never has the Association been so well favored in this respect. The district in which the meeting is to take place is at the west edge of the business section of the city, easily accessible from all directions by street car or otherwise and not more than fifteen minutes' street car ride from the most distant hotel. The grouping of the meeting places is so compact that should one walk from the Registration Building (Moolah Temple) to the farthest hall it can be done in ten minutes or less; from section to section is a matter of from one to five minutes. The convenience of the location and arrangements of the different halls is more outstanding than in any other city in which the Association has met, and a decided improvement over the accommodations which were had at the meeting in St. Louis, 1910.

The Registration Office, Post Office and Commercial Exhibit is to be in the Moolah Temple (Shrine), a beautiful and commodious building on Lindell Boulevard, two blocks west of Grand Avenue. At the other extremity of the group is the Odeon, the home of the St. Louis Symphony Orchestra, with a main hall which seats better than 2,000, and several lesser halls. The main hall will be used for the opening session. Its acoustics

are particularly good and suited to our purpose. The Sections on Practice of Medicine and of Disease of Children meet here. In the assembly hall of the same building the Sections on the St. Louis Meeting of the American Medical Association. Pharmacology and Therapeutics, and on Pathology and Physiology will meet. (It will be noted that there has been an aim to foregather closely allied sections.) The Sheldon Memorial, a very beautiful new hall on Washington Avenue one-half block west of Grand Avenue, which most admirably meets all requirements, will be the meeting place of the Sections on Ophthalmology, and Laryngology, Otology and Rhinology. The Section on Surgery, General and Abdominal, and on Obstetrics, Gynecology and Abdominal Surgery, will be held in the Third Baptist Church on Grand Avenue, a situation well suited to the demands. The Sections on Orthopedics and Nervous and Mental Diseases will meet in the Law School of the St. Louis University, on Lindell Avenue, a few steps west of Grand. The hall easily seats 500 and is both comfortable and convenient. Dermatology and Syphilis and Urology will use the large Union Methodist Church, on Delmar Avenue just west of Grand, which meets every requirement. The Sections on Gastro-Enterology, Proctology and on Preventive Medicine will use the large hall in the Musicians' Club on Pine Street, east of Grand Avenue, and next to the building of the St. Louis Medical Society, where the House of Delegates will hold its sessions. The Section on Stomatology is assigned to the assembly hall of St. Peter's Parish House, one block west of Grand on Lindell. Immediately in this district will be found three of St. Louis's most important clubs, the St. Louis University and the Columbian. Restaurants catering to every grade of patronage are numerous in the district and precautions have been taken to insure that normal rates continue during the meeting.

The St. Louis profession is preparing for an unusual attendance; hotel reservations are coming in rapidly but it is purposed that even the late comer shall be comfortably housed. The wise traveler, however, makes his reservation as early as he finds it possible. Dr. M. B.

Clopton, 3525 Pine St., St. Louis, is chairman of the Committee on Sections and Section Work.

### Iodalbin

The iodides have held their ground in professional esteem not because but in spite of the attitude of the patient toward them. They are disagreeable to take, and yet in many cases prolonged courses of treatment are necessary. An iodine compound that does not dissolve in the stomach, and is therefore without irritating effect upon that organ, is marketed by Parke, Davis & Co., under the name Iodalbin—an albuminate or protein compound of iodine.

Iodalbin contains about 22 per cent of iodine in organic combination—not a large proportion as compared with the iodides, and yet the dose is about the same, for the reason, as stated by the manufacturers, that the iodine in Iodalbin remains in the tissues, accomplishing its therapeutic mission, much longer than the iodine in inorganic combinations.

Iodalbin is put up as a powder in ounce vials and in 5-grain capsules.

### Symposium on Syphilis

The symposium on the treatment of syphilis held during the General Meeting of the Medical Society of the State of Pennsylvania, Philadelphia Session, October 5, 1921, included a number of papers of interest to the progress of the control of syphilis. Jay Frank Schamberg who read the paper, "Modern Conceptions of the Treatment of Syphilis," concludes that no crystalized formula of treatment can be adapted to all cases, and in no disease is individualization more essential than it is in syphilis. Thomas McCrae, whose paper dealt with the treatment of visceral syphilis, believes that the cure of that form of syphilis is more or less uncertain. Mercury is an important aid. In aortic syphilis the dosage of arsphenamin or neoarsphenamin should be small, and in hepatic syphilis, not at all. The Wassermann reaction, whether negative or positive, should be regarded conservatively, he asserts.

The paper on neurosyphilis, read by Harry C. Solomon, emphasized the following points:



Neurosyphilis often develops during the course of the usual routine antisyphilitic treatment, in which case the treatment must be considered inefficient. The method of treatment must depend upon the individual case. Often mercury and iodides may succeed after arsphenamin fails to affect a cure. The spinal fluid is not the major criterion, as patients whose fluids remain pathological may recover clinically, whereas patients whose fluids become negative may succumb from neurosyphilis. In closing, Dr. Solomon says:

I would have you believe that I am optimistic about the treatment of neurosyphilis. Not all cases can be helped. But many cases which are considered incurable can be greatly benefited by intensive and prolonged treatment of the proper sort. We have at our disposal the means with which to help many cases of neurosyphilis, including meningitis, tabes, and paresis. Many of these cases are considered hopeless because of inadequate handling.

In the discussion that followed the presentation of the papers, Dr. Schamberg makes the following statement:

If there is any maxim or principle that we may set down in the treatment of syphilis, it appears to me that *the hazard of the treatment should be measured against the hazard of the disease.*—(Pennsylvania Journal of Medicine, Jan. 1922.)

#### A New Local Anesthetic

From time to time new anesthetics to take the place of cocaine have been proposed, and to some extent used, but without utterly supplanting the older and rather dangerous drug. Now, however, the surgeon has a substitute that is a decided improvement. The new local anesthetic is called Butyn (pronounced *Bute-in*, with the accent on the first syllable.) It is the discovery of Professors Roger Adams and Oliver Kamm, of the University of Illinois, and Dr. E. H. Volwiler, of The Abbott Laboratories, Chicago.

The anesthetic has been passed by the Council on Pharmacy and Chemistry, of the American Medical Association. In his report, Dr. A. E. Bulson, Jr., for the Committee on Local Anesthesia, Section of Ophthalmology, said that it acts more rapidly than cocaine and its

action is more prolonged. Less is required, and in the quantity necessary it is less toxic than cocaine. It has other advantages which make it highly useful, especially for eye work. A solution can be boiled without impairing its efficiency.

The Abbott Laboratories is supplying Butyn, in tablets (with and without Epinephrin) and 2% solutions, which may be had without narcotic blanks.

#### Optic Neuritis in Serum Sickness

In the case reported by V. R. Mason, Los Angeles (Journal A. M. A., Jan. 14, 1922), certain abnormalities were discovered which pointed to involvement of the central nervous system in the reaction of the organism to a foreign serum. The patient was admitted to the hospital on the second day after the onset of acute lobar pneumonia. Type I pneumococci were grown from washed sputum. During the third, fourth, fifth and sixth days of the disease, the patient received 500 c. c. of Type I antipneumococcus serum intravenously. His temperature fell by crisis on the seventh day of the disease. Severe serum sickness appeared on the ninth day, and was present for fourteen days. During the course of the serum disease, a well marked, bilateral optic neuritis was observed. This was associated with marked lethargy and an increase of the globulin and cellular content of the cerebrospinal fluid. The optic neuritis was not associated with demonstrable visual disturbances. At the end of three months, the fundi had returned to normal in appearance.

#### Use of Drugs in Neurology and Psychiatry

Of the various symptoms which demand attention from the neurologist and the psychiatrist, C. Macfie Campbell, Boston (Journal A. M. A., Oct. 15, 1921) says the most common are pain and distress, sleeplessness, agitation and excitement. These are the symptoms for which the physician has recourse to drugs, while the complex, underlying disorders are recognized to be beyond the reach of such simple methods of treatment. As for the treatment of pain and distress and sleeplessness, the danger of a purely symptomatic treatment is well known. They are merely

indicators of the underlying disturbance, and it is the business of the physician not to confine himself to the warning sign, but to penetrate to the underlying disorder. Merely to remove the disconcerting symptoms involves the double danger of neglecting the fundamental trouble, and of developing an ignoble dependence on the drug. But symptoms deserve some attention on their own account, and pain is the one which is the most insistent. For conditions of mental distress with agitation, barbitol in comparatively small doses is a very useful drug. Paraldehyd is the drug which gives the nearest approach to a normal sleep, but, owing to its disagreeable odor, the coaltar derivatives have been much preferred, and of the series barbitol is the most uniformly satisfactory. If in psychiatry the use of drugs is somewhat limited, it is largely because in these complex disorders the chief weight in the treatment must be laid on the personal relationship between physician and patient, on the organization of the nursing personnel, and on the atmosphere of the hospital with its occupational and recreational elements. It is in virtue of the presence of these factors that treatment in hospitals is, as a rule, to be recommended in preference to treatment of the patient at home.

— R —

### **Symptomatic Treatment of Pneumonia**

The factors that may cause dyspnea are discussed by J. H. Means and A. L. Barach, Boston (*Journal A. M. A.*, Oct. 15, 1921). Dyspnea will arise whenever the pulmonary ventilation called for by the life processes at the moment exceeds the quantity of air that the pulmonary bellows is mechanically capable of delivering with ease. The respiratory center wishes to maintain a constant alveolar carbon dioxid tension. To do this ventilation must increase in like proportion to carbon dioxid output. In pneumonia, the metabolism will, as in the normal, be one of the factors determining the volume of the pulmonary ventilation; an increase in metabolism due to the disease will call for an increase in ventilation exactly as the elevated metabolism of muscular work did in the normal person. The metabolism of the pneumonia patient may be expected to be higher, even while he is at com-

plete rest, than it would be under the same conditions when he was well. He will, in other words, have a metabolic need for increased breathing or hyperpnea. If in a portion of the lungs a proper gas exchange cannot take place, in order to maintain blood carbon dioxid tension at a normal level, the normal portion of the lungs must be overventilated. Impairment, then, in the respiratory function of any portion of the lungs, if it leads to a mixture of aerated and unaerated blood, will be a factor demanding hyperpnea. Other causes are an insufficient circulation rate of blood flow; and anoxemia. The lower the vital capacity, the more will a patient have to increase his ventilation by an increase in rate at the expense of depth. That the vital capacity is reduced in pneumonia is certain. Whatever the cause, it will have the effect of necessitating a rapid, shallow type of breathing. In the treatment of these conditions, the possible lines to pursue would seem to be either to decrease demand or increase supply of ventilation. Two procedures which may be expected to diminish the need for ventilation are the administration of alkali and the therapeutic administration of oxygen.

Bicarbonate should be given only in amounts sufficient to turn the urine alkaline to litmus. If pushed farther than this, it may do harm by producing alkalosis. Oxygen should be given with one of the modern types of apparatus and often nearly continuously by a specially instructed nurse. Its continuation is to be governed by the effect on the cyanosis and the comfort of the patient. These measures are supplementary to specific therapy. When used, however, they may be expected to spare the patient several avoidable burdens and leave him free to devote his entire energy to the fighting of his infection, thus theoretically, at least, improving his chance of recovery.

— R —

### **Therapeutic Effect of Venesection**

The changes following venesection are described by W. F. Petersen and S. A. Levinson, Chicago (*Journal A. M. A.*, Jan. 28, 1922), and attention is called to a factor that seems of importance in the explanation of the therapeutic effect of venesection in lobar pneu-



monia. Years ago it was pointed out that recovery in lobar pneumonia must involve a dual detoxication: one a digestive phenomenon in which the lung exudate undergoes rapid lysis; the other an antibacterial mechanism usually coincident or actually dependent on the digestive acceleration.

Briefly, it may be stated that in the exudate of the consolidated lung a balance exists between the amount of enzyme present (protease and creptase from disintegrating polymorphonuclear leukocytes) and the antiferment of the plasma and tissue exudate. Early in the disease the leukocytes at the focus are living and have not shed their enzyme content. As they die, the enzymes diffuse into the surrounding medium. If at any time the enzyme concentration overbalances the inhibition of the tissue fluids, active proteolysis will commence and the crisis ensue. If in place of this increase in the enzyme concentration the amount of the antiferment can be diminished, the same augmentation of proteolysis will be brought about. This may take place with increasing acidity of the exudate, or actually diminishing the amount of plasma present in the exudate. Venesection may have a direct influence on this balance. The authors stress the fact that venesection at times induces striking therapeutic benefits, that a definite and logical basis exists for the therapeutic effects so achieved, and that its proper evaluation and application would in many instances afford clinical results when our more conservative methods fail.

—R—

#### When to Operate and When to Use Radium on Fibroids of the Uterus

The principal field for radiotherapy George Gellhorn, St. Louis (Journal A. M. A., Jan. 28, 1922), says is: (1) in women of 40, or over, who have fibroids which do not extend above the umbilicus; the more uniform the enlargement of the uterus, the better is the case suited for this treatment; (2) women who are designated as poor surgical risks, that is, patients with marked secondary anemia; (3) those who are opposed to any form of surgical treatment. Radiotherapy is indicated in women above the age of 40 who have symptomless fibroids. Clinical cures are obtained

in what probably constitutes more than 60 per cent of all cases of fibroids. In the hands of the expert, this method is followed by no mortality. There is an insignificant morbitz after radiotherapy which is steadily growing less as the result of improved technic. The field for surgery in the treatment of fibroids is fairly well defined. All tumors extending above the umbilicus and, likewise, all large pedunculated, subserous or submucous fibroids should be operated on, for in these three classes radiotherapy is likely to produce a necrosis of the tumor. Cervical fibroids are equally unsuited for radiotherapy, and should be removed surgically. The same is true of suppurating, necrotic or gangrenous tumors and those which are undergoing cystic or calcareous degeneration. While the frequency of such secondary changes in fibroids is not very great, they constitute an important group which must be reserved for surgical intervention. As a rule, women under 40 should be operated on rather than irradiated. The younger the patient, the more clearly is operation advisable.

—R—

#### Basal Metabolism and Ideal Weight and Pulse Ratios

More than twenty-five hundred observations on about twelve hundred subjects were made by Anne Peterson and Will Walter, Chicago (Journal A. M. A., Feb. 4, 1922). Contrary to the usual belief, there is no cause and effect relation between weight and thyroid activity as evidenced by the basal metabolism tests. Weight changes apparently are determined by other endocrines—possibly the anabolic types—rather than by the catabolic group to which the thyroid belongs. The conclusion should serve as a warning against the promiscuous administration of thyroid extracts in subjects who are overweight. Association was noted of low pulse definitely with low metabolism with gradual ascent of curve of rising metabolism with increase in pulse rate, until at 9 of metabolism an average pulse rate of 55 is recorded. After that point is reached, the metabolism shoots up with the increasing rapidity over the pulse rate until runaway pulse is reached, after which it does not change much. A pulse over 82 in men or

90 or over in women in a resting state is cause for suspicion of hyperthyroidism, and a basal metabolism test is indicated for final judgment and is likely to show plus. Several observations have shown that when the pulse rate drops from a high normal in action to a normal or low "basal" rate, the basal metabolism is most likely to show normal or low. The basal metabolism test is necessary for diagnosis and for therapeutic regulation. Its determination by tried out portable apparatus is reliable. The test is best made at the bedside of the subject, and the portable apparatus makes feasible its use in the home when proper technic is employed.

—R—

#### Serum Prophylaxis of Measles

The injection of serum obtained from donors was tried out during a recent epidemic of measles of moderate severity, in Rochester, Minn., and the results are reported by Morley D. McNeal, Rochester, Minn. (Journal A. M. A., Feb. 4, 1922). The donors were free from tuberculosis and syphilis, and had passed through fairly severe attacks of measles, without complications or sequelae. They were bled after an interval of five, seven or nine days from the disappearance of the fever. The serum was bottled in amounts of 6 c. c., preserved with 0.01 per cent tricresol, and kept in the icebox until used. After varying periods following exposure, sixteen recipients were given 5 c. c. of the serum, injected into the muscles of the thigh. None of the children had ever had measles, although they had come in intimate contact with patients during the contagious period. Four of the sixteen developed an extremely mild type of measles, but no complications or sequelae. In three of the four patients, the incubation period was lengthened to nineteen days. Twelve children remained free from measles. One child contracted measles two months after successful inoculation; this suggests that the immunity does not persist longer than sixty days in some cases. The method recommends itself most highly for the prevention of measles during the period of danger, between the ages of 5 months and 6 years, in tuberculosis children and in those physically below normal. In institutions in which large

numbers of frail children are intimately associated, the procedure would be of great value.

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#### Congenital Syphilis

Joseph S. Lawrence, Albany, N. Y., (Journal A. M. A., Feb. 25, 1922), assisted in making a survey of the families from which syphilitic patients came to Ward's Island. Among the 254 immediate relatives of seventy-five patients, syphilis was established in fifty cases, or 19.6 per cent. The inmates of a large orphanage were also examined. Of 11,205 persons ranging in age from 2 to 21 years, with an average of 10 years, 1.1 per cent of all gave a four plus reaction to alcoholic and cholesterinized antigens. Defects were most frequently noted among those with positive Wassermann reactions. After the results of the blood examinations were known and the children had been grouped as to whether they had a positive, doubtful or negative reaction, it was found that those with clinical symptoms suggestive of syphilis were not all in the positive group, but that many were included with those having a doubtful blood reaction. It was therefore decided to make a careful survey of the immediate relatives, when possible. The families of fourteen children with positive reactions, of 263 children with doubtful reactions, and of sixty-six children with negative reactions were investigated. It is shown that when the children had positive blood tests, 82 per cent of the relatives tested were positive, or, in other words, including the fourteen children originally examined, twenty-three cases of syphilis were found among twenty-five individuals from six families. The findings in the doubtful group were equally interesting. Of the 173 relatives tested, twenty-three, or 13 per cent, were found to have definite four plus Wassermann reactions to specimens of their blood, while the reactions for the children themselves were at best classified as doubtful.

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To do so no more, is the truest repentance.  
Martin Luther.

—R—

Habit is the deepest law of human nature.—  
Carlyle.



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### Remarks on Infant Feeding

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

It is neither my desire nor intention in this paper to take up the many questions which arise in feeding sick and abnormal infants. To go into these questions at all intelligently each separate case would of necessity have to be taken individually and would require many times the time allotted to us here.

From observation, it is my belief that the most important time in the child's life is the first year or two. This is the time when a child is started successfully on its way in life with a good digestive system or with its digestion, and consequently its entire physique, impaired by improper food or with food improperly prepared and given. If the medical profession believes in preventive medicine it has a wonderful chance to show this by taking an intelligent interest in the feeding of every infant. And this not after the child has been brought to you underweight and with digestive disturbances to correct, but rather from the very first day of the child's life, so that there will be no cessation of the normal gain and no disturbances to upset the child.

When we consider the huge number of children who die in the first two years of life, it seems that we cannot over emphasize the importance of this branch of medicine. I know that many will say nature will take care of them—and would in most cases if given the chance. The trouble is that the physician and the parents combined are often able to undo all of the good work that nature attempts.

Taking the normal infant and the normal mother there is of course only one food to consider for the first few months. This is mother's milk, and it is important to keep the child on this diet from the first if it shows a gain in weight. Every effort should be put forth to keep the quantity and quality of the mother's milk up to standard. In this it is

essential that the mother be watched very carefully, and that she be given definite instruction as to diet, exercise and hygiene. No child should be taken from the breast simply because the mother thinks she can't nurse it or because she thinks it will not be ladylike to do so. The test by which we can judge whether or not the mother has enough milk or whether it agrees with the child is by the weight curve of the child. This should be noted weekly and put down in black and white, so that a faulty memory will not enter into our calculations in regard to the loss or gain in the child's weight.

Every mother's mind should be disabused of the idea that she will not be able to nurse her child. The psychological effect of these thoughts on the quality and quantity of the milk is very great. Any worry will naturally upset the milk glands in their functioning and thereby cause digestive trouble to the child. It should be the aim of the physician to see that the mother is free from worry as much as possible, especially the first three or four months of the infant's life, or until it gets its digestive apparatus to functioning well.

Next to the importance of seeing that the mother takes the proper care of herself, I would say is the establishing of regular habits in the child. Both on account of the effect on the flow of milk and upon the child. The mother should have regular periods for feeding the child. It is far easier for the child to become accustomed to feeding at regular intervals than for it to feed at any time when the mother may think it is hungry. A new born babe should be put to the breast every two and one-half hours during the day and once at night, after the first twenty-four hours. A great many men now are adopting a three-hour schedule from the first, and it really seems that this is often enough for most strong, healthy babes. But whatever schedule we have the mother adopt, we should

insist that the baby be fed according to that schedule. It will be only a few weeks until the child will awaken at its feeding time and will need no outside interference to tell it when to eat.

If a child on mother's milk does well, when should it get additional food and what? Up until recently most authorities advocated no additional food before the child was nine or ten months old. But now it is considered good for the child to start something earlier in the way of nourishment. In supplying the child with extra food it is well to start with very small amounts, in order to see whether or not the digestive organs can take care of it. In addition to orange juice and prune juice, the normal child can digest and benefit itself by taking vegetable broth made from carrots, spinach, turnips and pees. The iron obtained in this way, causes a rapid improvement in the anemia so often seen in children from six to eight months old. At about the seventh month, a cereal such as Ralston's or Cream of Wheat may be given with milk and sugar, given in small amounts at first, and at the end of two weeks one entire feeding may be given. At this age the child digests carbohydrates very well, and in case where constipation causes trouble, it is usually much improved after the child is taking one feeding a day of the cereal. Zwieback may be given the child now, it usually enjoys chewing on it, digests it well, and it probably helps some in getting the teeth through sooner than they otherwise would.

At nine to ten months, beef or mutton broth with toast or zwieback may be given. The nourishment in this is not great but the salts and extracts in it probably stimulate digestion. Often at this age, the child apparently gets tired of its regular food, and the addition of the broths seems to get away from the regular run of its diet and helps to get back its appetite as well as helping supply the salts which the child needs. At the end of the first year it should be our aim to have the child on straight cow's milk with the food already mentioned, and an egg every other day.

In case the mother cannot feed her child and have it gain naturally and regularly, what shall it be fed? This is probably the

most important question in regard to the child which we will have to decide. Goat's milk chemically is the nearest to mother's milk, but is not a practical food except in isolated cases, as goats are not readily obtainable, and many families in the city would not be able to care for one if they could get it. We have left the different patent foods, the condensed milk and cow's milk. The relation of carbohydrate, fat, and proteid in all of these foods is entirely different from either cow's milk or mother's milk. They are all very high in carbohydrates and comparatively low in fat and proteids. Many children will of course gain rapidly on these foods, due to the high sugar content. But those who have any intestinal trouble do not have the resistance of babies fed either on mother's or cow's milk. The patent foods do not cause as much intestinal trouble as the Eagle Brand Condensed Milk, as their sugar content is largely dextrose and maltose, while the latter contains cane sugar which is much harder to digest and causes more fermentation in the intestines. The only thing in favor of this condensed milk, looking at it any way you like, is that it is easy to prepare, and that is a mighty poor recommendation for something to feed an infant. If the principle of safety first is advocated anywhere, it should be in the feeding of infants. Very few doctors would prescribe medicine for a child if they did not know the size of the dose of each ingredient the child would be taking. But many of them off-hand prescribe this condensed milk and have not the slightest idea of the amount of sugar, proteid or fat the child is getting. And between the average medicine and milk, the latter is far more important for the child.

For general use in infant feeding cow's milk is the best food we can have if mother's milk is not available. It is important to know the percent of the different elements in the two milks. This follows as given by Dunn:

	Cows	Human
Fat .....	4.00	4
Sugar .....	4.75	7
Proteid .....	3.50	1.50
Salts .....	.70	.20
Water .....	87.05	87.30



It is taken for granted that only the cleanest milk will be used, that it is herd milk rather than from a single cow, and that it will have the required 4 per cent of butterfat. The question often arises as to the effect of heat on the milk, as to whether it is hurt by pasteurization or by boiling. As to the first, most authorities hold that pasteurization does not make the milk harder to digest, while it does kill most of the microorganisms. As to the boiled milk, there has been a wide divergence of opinion. There is no evidence of rachitis from the use of milk boiled for two minutes and it undoubtedly makes a softer and more flocculent curd, making the proteid digestion easier. In several cases of proteid indigestion I have used boiled milk, bringing it to a boil and keeping it there for two minutes. The possibility of scurvy is present here, but can be guarded against by the use of the fruit juices and the vegetables.

In the use of cow's milk as an infant food, we have the chemical difference between the cow's milk and mother's milk to think about, and also the difference in the digestive powers of the individual babies. There is a wide variation in the digestive power of infants of the same age, and it is up to us to find the food modification best suited to the individual child.

As a basis for feeding of cow's milk it is essential that we have a record of the percentage of the different elements in the foods. By knowing the percentage of fat, sugar and proteid the child is getting, we at least have a working basis and the percentages can be changed at will, according to which of the food elements is seemingly causing the difficulty, whether in too large or small amounts.

There are many reliable ways of modifying cow's milk, but for the average child, one of three should be sufficient. The other methods only being used when there is a definite pathological condition which can be best treated by a certain modification.

The milk and cream dilution with the addition of lactose is essentially the Holt method of modification. In this there is no attempt made to change the chemical composition of the milk, but to modify it by dilutions and addition of lactose to simulate mother's milk,

or to give us varying percentages of fats, carbohydrates and proteids. By using the top third we have ten per cent fat and three and two-tenths per cent proteid, four and two-tenths per cent sugar. Say we have a small child taken from the breast, it is best to start it on a weak mixture. Proteid giving us most trouble in feeding, we'll start on a proteid below that in mother's milk, say 1 per cent. The sugar can be the amount usually found in mother's milk or seven per cent. To start with it is best to go below the child's ability to digest rather than above it, or about three per cent fat. That gives fat three, sugar seven, proteid one. By using top milk which is ten per cent fat and making a mixture of twenty ounces we would have milk 6 ounces and water 14 ounces, lactose 1 ounce or five per cent, which would give us the desired per cent. By using top milk, ten per cent fat or top half of the bottle, seven per cent fat or whole milk four per cent fat, we can get most any percentage of the various food elements.

No matter what method of modification of milk we use—whether it be ten per cent fat, seven per cent or whole milk or skimmed milk and gravity cream, it is important—in fact the most important thing to do or know is the percentage of the different foods which the infant is getting. Without this knowledge we are working in the dark. But with the proper knowledge of the percentage feeding we are always able to know what the child is getting and to change the percentage of the different food elements with very little trouble. The percentage feeding so called is of course not really a method of feeding but rather a measurement of what we are feeding. It simply enables us to vary the proportions and give the infant the different foods in any percentage which in our judgment is best suited to the child. One could easily have the different methods down pat—his mathematics could be perfect and still not know what percentage of the different foods would be best for the child and thereby get poor results. This does not argue that his calculation of the different foods in the milk is unimportant but rather that the judgment of the doctor as to what was best suited to the child was not good in this instance.

The number of infants who cannot be fed on cow's milk in some modification is very small, in fact, taken before their digestive apparatus has been entirely upset by switching from one proprietary food to another every few days, there are probably no children who cannot thrive on cow's milk if the fat, proteid and carbohydrates are mixed suitably to its digestive power, as shown by the stool and the weight curve.

Probably the method by which we can have the widest variation in the per cent of the food elements and which is used very much at present is the gravity cream and skimmed milk method. Personally I find the methods of Holt to provide all the range necessary but this is used more and should be known by all. The following table gives the percentage of the ingredients used in this modification.

	Fat	Lactose	Proteid
Gravity Cream . . . . .	16.00	4.50	8.20
Skimmed Milk . . . . .	0.00	4.50	3.20
Lactose . . . . .	0.00	100.00	0.00

The simplest calculation is that worked out by Dunn and is based on a mathematical proportion by which all problems in dilution may be solved. It is: That the quantity of an ingredient is to the total quantity of the mixture as the per cent of any element in the ingredient is to the per cent of that element in the mixture. Thus it is that the ounces of an ingredient required to give a certain percentage is found by dividing the percentage required by the percentage of the element in the ingredient and multiplying by the total number of ounces in the mixture as follows:

We want fat four, lactose six, proteid three. The baby is taking four ounces at a feeding and seven feedings daily, making twenty-eight ounces total. Gravity cream is 16 per cent fat, therefore  $x = \frac{4}{16}$  of  $2\frac{3}{4}$  or 7 which is the number of ounces of cream necessary. Proteid being the same in both the cream and skimmed milk we will find the total number of ounces of both required to give the 3 per cent proteid.  $x = \frac{3}{3.2}$  of  $2\frac{3}{4}$  or 26, the number of ounces of both the cream and milk necessary to get the desired proteid.  $26 - 7$  is 19, the ounces of skimmed milk.  $2\frac{6}{28}$  of  $4\frac{1}{2}$  is 4.16% of sugar in the 26 ounces of milk. Six the per cent desired minus four the per cent we have in

the milk gives us two per cent more to be added.  $x = \frac{2}{100}$  of  $2\frac{3}{4}$  or  $\frac{56}{100}$  of an ounce to be added. As two rounded table spoons of lactose equal one ounce, here we would want a little over one.

By modification with alkalies it has been proven that the alkali acts chemically by combining with the casein of cow's milk, thus delaying the precipitation of the curd, which is more flocculent than normal, and easier acted upon by the gastric juice. Lime water, sodium bicarb, or sodium citrate, any one of them can be used as the alkali. Many children do not need this addition, but I believe it is used in practically all cases. Starch dilution with barley water and oatmeal water, act similarly to the alkalies and I find their use as a diluent invaluable.

The use of other soluble carbohydrates other than lactose for milk modification are very good. Some believe the addition of dextrose or dextri-maltose makes the casein curd softer and easier to digest. This is questioned, but all agree that in cases of malnutrition, where the patient is intolerance to lactose and cannot get the benefit needed from the fat in the diet that the dextri-maltose is invaluable as it is the easiest sugar to digest, and can be immediately used for energy production without undergoing further change. In this method of modification I have used both Mellin's food and Mead's dextri-maltose. There is only one objection to Mellin's that I have seen and that is that the parents soon get in the habit of going by the directions in the package rather than by frequent visits to the doctor. This is really a more serious objection than might appear on the surface. If the child does poorly it is the doctor's fault while if it does well Mellin's gets the credit. In this connection, I recently saw a child of eleven months, weighing thirteen pounds, had no digestive trouble apparently, except failure to gain in weight. Had been on mother's milk the first six months with a normal gain, was taken from the breast and put on Horlick's and at eleven months when I saw the child it weighed two pounds less than at six months. Put the patient on three and a half per cent fat, seven per cent dextri-maltose, and one and seven-tenths per cent protein. A gain in



weight soon began. At twelve months was taking forty ounces of four per cent fat, seven per cent dextri-maltose, two per cent protein in addition to cereal, beef broth and vegetable broth and weighed fifteen pounds. The gain continued, and was gradually put on straight cow's milk with the same additions as given to the breast fed child of the same age.

In exceptional cases where there is constant fermentation in the intestines, the Eiweis milk of Finklestein is good. This is largely a precipitated protein in finely precipitated form in lactic acid milk or buttermilk. In cases of sugar indigestion this far surpasses all others. In addition to the modified milk, I think the cereals, broth, etc., should be used the same as in feeding with mother's milk.

In closing I want to emphasize the importance of starting the baby properly. If you can so regulate the child's diet that you have a healthy child at two years of age with no digestive trouble, this same child will continue to advance and be healthier and less likely to the ordinary troubles of childhood than the child not so taken care of in the early period of its life.

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#### **Oidiomycosis—Including One Case of Coccidioidal Granuloma and One of Cutaneous Blastomycosis**

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

A discussion of Oidiomycosis would seem appropriate at this meeting, since it is a disease which is apparently confined largely to the American continents and also since a few cases have been reported in Kansas.

Oidiomycosis as a disease is of interest to the specialist and general practitioner alike. It is the surgeon who probably first sees the case as an ulcer or abscess, and quite often the skin specialist is called in to see the case. The genitourinary specialist may see him because a number of cases have been reported in the testicle and prostate. The orthopedist and x-ray specialist may be called to see an infection of a joint or bone, the neurologist when there is an infection in brain or cord. Infections have been reported in the eye, ear, nose, and throat. When the case becomes sys-

temic it goes to the internist, and finally the pathologist to make a final report.

My purposes in presenting the subject at this time are: first, to recall that the disease is found in Kansas; second, to show its close resemblance to tuberculosis; third, to review the points in diagnosis; fourth, to give treatment; and fifth, for the scientific interest that the subject presents.

I choose to follow the classification suggested by Ophüls of California and seconded by Ricketts of Chicago and include under the term oidiomycosis both blastomycosis proper and oidium coccidioides, which produces the lesion known as coccidioidal granuloma.

There has been considerable difference of opinion as to the relationship which exists between coccidioidal granuloma and blastomycosis. They resemble each other in many respects, both clinically and anatomically, but at the same time there are certain well marked differences which will be mentioned later on. A number of American authors from the Eastern and Middle states where a large number of cases have been reported are inclined to believe that the two conditions are the same. In this contention they are opposed by authors of California where most cases of coccidioidal granuloma have been observed.

The disease may be either acute or chronic. The infecting organism in each instance is a parasitic fungus and appears in the tissue, pus, and sputum. They appear as spherical bodies about thirty microns in diameter with a double contoured, highly refractile capsule and slightly granular protoplasm. The organism grows readily on artificial media as a white mold which develops short hyphae in which chlamydospores develop. They seem to vary only in their mode of reproduction in the tissue. The organisms of blastomycosis reproduce by budding while those of coccidioidal granuloma reproduce by a process of endosporulation. LeCount, of Chicago, reports finding both forms in the same patient on one occasion.

Regarding the predisposing causes, little can be said. Blastomycosis seems to be distributed throughout the United States but most of the cases have been reported from the vicinity of Chicago. In fact, so many

that it is known as the Chicago disease. Of coccidioidal granuloma it is of considerable interest that of the known forty cases, thirty-five have been residents of California and that twenty-seven have been or spent some time in the San Joaquin Valley and of the eight other persons who developed the disease in California there are but two of whom there is no record that they had not been in the valley.

The majority of cases occur in laboring men who are subject to exposure and dampness. It is not limited to age or nationality. Little is known regarding immunity but it would seem that the infection occurs in persons who are below par physically.

The specific cause is the organism mentioned of which little is known regarding its distribution outside the body. A. M. Stober of Chicago reports finding an organism similar to blastomycosis growing on decayed wood on the floor of a building in which an infected patient lived.

The mode of entrance to the body is through a lesion in the skin or by way of the respiratory tract and the spread of the organisms from those points and the resulting pathological conditions depend very much on the resistance of the patient and the location of the lesion.

The primary skin lesions usually appear as small indurated nodules, at first painless but later sometimes quite painful to pressure. The lesion enlarges by extension of margins which are raised and indurated. After ulceration occurs, a dirty crust forms. Beneath the crust is a ragged nodular, granulomatous surface from which large amounts of creamy yellow pus can be squeezed. The lesions are usually multiple.

The appearance of the skin lesion so closely resembles the more acute forms of tuberculosis in gross and microscopic section that a diagnosis can be made only by identification of the characteristic spherical bodies in pus or tissue or by their culture. Coccidioidal granuloma is more destructive, of shorter duration, has a greater tendency to involve lymph glands and to become systemic than blastomycosis.

When the initial infection occurs in the

respiratory tract, the clinical picture is that of pulmonary tuberculosis. The patient complains of cough, weakness, loss of weight, chills, fever, night sweats, and general debility. There is a blood stained sputum in which no tubercle bacilli can be found. Physical examination shows all signs of pulmonary involvement and pleural effusion is often found. Unless one thinks to examine the fresh sputum for the spherical bodies, a diagnosis of pulmonary tuberculosis will almost surely be made. In only one case has the tubercle bacillus been found. In cases in which pulmonary lesions have occurred, the onset of general infection rapidly ensues.

When the infection manifests itself in the joints the picture is that of acute or sub acute arthritis. About 20% of systemic blastomycosis develop joint lesions while in coccidioidal granuloma the percentage is slightly higher, while a few seem to be primary in the joint. The joints are red, swollen, and painful and eventually become fluctuating. Roentgen ray examination reveals a type of bone destruction indistinguishable from tuberculosis. If incision is made into the fluctuating mass, a large amount of blood stained pus escapes and the sinus will refuse to heal.

The symptoms of patients with a general infection vary according to distribution of lesions in the body. In those cases in which there are no skin lesions, the clinical picture resembles that of acute millary tuberculosis or typhoid fever. A few cases of meningitis have been reported. The organisms have been found distributed widely in the body. The distribution of lesions in forty-four cases of general blastomycosis by A. H. Montgomery is as follows:

Lungs.....	42	Pleura.....	7
Larynx.....	2	Trachea.....	1
Thyroid Cartilage....	1	Retropharyngeal glands	2
Myocardium.....	2	Spinal cord.....	3
Brain.....	8	Dura.....	5
Liver.....	11	Spleen.....	18
Kidney.....	12	Pancreas.....	2
Adrenal.....	2	Prostate.....	4
Pericardium.....	2	Deep Psoas.....	5
Skin.....	3	Joints (20%).....	9
Bones.....	16	Vertebrae (56.8%)...	9
Lymphatics.....	9	Muscles.....	4
Epididymis.....	2	Testicle.....	1

In the pathological picture even more than in the clinical manifestation does the disease resemble tuberculosis. In several cases the



anatomic diagnosis at necropsy has been tuberculosis, and it was only when microscopic examination was made that the true nature of the lesion was recognized. The lesions consist of typical tubercles with central caseation, multinuclear giant cells of the Langhan type, and lymphocytes. In the skin there is much proliferation of epithelium and one may be led to believe that it is an epithelioma. There is much pus formation, and the budding and endosporulating organisms can be seen.

In regard to prophylaxis very little can be said. That it is auto inoculable is shown by the multiple lesions on many of the cases reported. However, I find no reference where the disease has been transferred from one person to another, although there are a few suspicious cases. The best method of prevention seems to be to improve living conditions.

Cutaneous blastomycosis is usually chronic and yields slowly to treatment. There is little tendency to systemic infection. In systemic cases the result is fatal in about ninety percent of the cases. The almost constant outcome of coccidioidal granuloma is general infection with a rapidly fatal termination. There are only four cases in which the clinical diagnosis had been established which did not go on to general infection. One of these still has an active lesion, one died shortly after diagnosis without necropsy, and two cases were early amputations by Gardner with an apparent complete arrest of the disease.

In blastomycosis the treatment with massive doses of potassium iodide and x-ray is most satisfactory but some cases are very prolonged. In coccidioidal granuloma treatment is unsatisfactory. The only hope seems to be in early amputation when the lesion is favorably situated. Potassium iodide and x-ray seem to be of little value. Salvarsan has been of no noticeable value. Some favorable results have been reported from vaccine in blastomycosis.

I wish to report two cases, one a case of cutaneous blastomycosis which I have recently seen. He had typical lesions on the forearm and neck in which the typical organisms were demonstrated. He yielded slowly to treatment. The case has no further interest than

an illustration. The second case is one of coccidioidal granuloma. This is, I believe, the first case to be reported in Kansas and as far as I am able to find the forty-first in the literature. In this case we were very fortunate to observe the disease with its various lesions. It first appeared on the skin of the back. It was arrested but not completely healed by potassium iodide and x-ray. Later lesions developed in the joints and two of these were opened. The lymph glands became infected and broke down and finally the patient died with lesions in the lungs which were identical to pulmonary tuberculosis clinically and anatomically. It was not until examined microscopically that the true diagnosis was made.

—————R—————

## BELL MEMORIAL HOSPITAL CLINICS

Clinic of Dr. Ralph H. Major

Department of Medicine

### HYPERTENSIVE CARDIOVASCULAR DISEASE

I wish to present today three patients each of whom shows somewhat different manifestations of the same underlying pathologic process. This condition was unrecognized for many years, its existence disputed for another term of years, and only recently has it finally forced itself, somewhat an unwelcomed guest, into the category of definitely recognized syndromes. The disease may be found among the young and old, the poor and well-to-do, the ignorant and the intelligent.

The first patient whom we have to show is a man of 32, who came to the hospital one week ago complaining of headache.

Family History: Father died of dropsy; family history otherwise negative.

Personal History: Patient has always enjoyed good health, never had any serious illness; denies venereal disease; has no history of any previous eye, ear, nose, throat, chest, heart, or stomach trouble.

Present illness: Patient does not remember the exact date of the onset but has been having headaches frequently for the past two months. These headaches bear no particular relation to reading or use of the eyes, but are usually more marked when the patient is tired. The patient also has a slight dizziness

and light-headedness at times. There has been no shortness of breath, digestive disturbance, or swelling of the feet. The patient does not get up in the night to void.

**Physical Examination:** The patient is a large, well-nourished man about 30 pounds overweight. There is some pyorrhea present, chest is clear on percussion and auscultation, the heart is slightly enlarged, the heart sounds are clear, the second aortic loud and ringing; the blood pressure is 185 systolic, 120 diastolic, and there is no thickening of the vessel walls. The abdomen is negative, and there is no edema of the feet. The patient has at times a slight trace of albumin in the urine, urine otherwise clear. The examinations of blood shows R.B.C. 4,800,000; W.B.C. 8,000; hemoglobin ninety per cent (Dare). The Wassermann is negative; blood urea 15 mg. per 100 cc, blood creatinine 1 mg per 100 cc. Phenol-sulphonaphthalein test, intravenously, seventy-five per cent in two hours. Dental films show two abscessed roots.

The essential feature in this patient's history then, is the presence of headaches, the essential feature of the physical examination is the presence of an arterial hypertension, both systolic and diastolic. It is noteworthy that the blood examination shows nothing abnormal. The urine is negative except for an occasional trace of albumin, and there is no evidence of impaired kidney function. This patient ten years ago would probably have been diagnosed as a case of Bright's disease, and would have been given almost gloomy prognosis. At the present time we are able to say fairly definitely that he has no evidence of Bright's disease. This disease may develop later. We can not insure him against that, but the chances are that by following a proper regimen and treatment this can be avoided, and I would not be surprised if this man ten years from now were in better condition than he is at the present time.

This patient is a very good example of a pure, uncomplicated case of so-called hypertension. This is the disease that von Basch spoke of as "latent arteriosclerosis." Mahomed labelled it "the pre-albuminuric stage of Bright's disease." Sir Clifford Allbutt, who has devoted a great part of his life to study-

ing this disease christened it "hyperpesia," while the late Theodore Janeway preferred the term "hypertensive cardiovascular disease." The last term has the distinct advantage, I think, of emphasizing certain later manifestations of the trouble which are apparent in the patients that are to follow.

A noteworthy feature of the condition in its beginning, is the presence of an increased blood pressure, often with no other physical findings. This patient complains of headache and occasional attacks of dizziness and light-headedness, very common complaints in this disease, although it is striking that many patients have no complaint whatever, and the condition is discovered only in carrying out routine physical examinations for life insurance or for some other reason. Many patients, in the early stages of this disease hear their friends constantly remark on how well they look; another group, however, are very neurasthenic, and may be mistaken at first for pure functional neuroses.

If this disease never went beyond the first stage it would never have attracted the attention that it has. Unfortunately, however, there are grave, and even fatal complications that may present themselves later. Some of the complications are shown in the following patient.

This second patient was admitted to the hospital one week ago for observation and treatment. He is sixty years of age.

**Family History:** Negative.

**Personal History:** The patient had good health until the present illness except for occasional attacks of headache. The patient denies venereal disease. There is no history of shortness of breath or disturbance in urination.

**Present Illness:** This had a sudden onset one week before admission. While in his backyard the patient experienced a sudden sinking sensation in his right side, fell, and could not get up or move around; called for help, but lay there for some time before he was found. Later he was brought into the house and it was found that he had lost the use of his right arm and right leg.

**Physical Examination:** The eyes are negative, the tongue is protruded to the left, his



speech is somewhat thick. His chest is clear on percussion and auscultation, the heart is not enlarged, the heart sounds clear and there is a ringing second aortic sound. The radial artery on palpation is found to be very markedly thickened. His blood pressure since admission has varied from 170-200 systolic; 82-100 diastolic. The abdomen is negative, and there is no edema of feet. Examination of the extremities shows weakness of the right arm and the right leg. The Babinsky reflex is positive on the right. The urine has a specific gravity of 1.020, is negative for sugar and albumin and shows microscopically numerous hyalin casts. The phenolsulphonephthalein test intramuscularly shows an excretion of fifty per cent in two hours. The blood shows R.B.C., 4,500,000; W.B.C., 10,700. Hemoglobin eighty per cent (Dare).

This patient, like the preceding one shows an elevation of blood pressure. This elevation is accompanied by two distinct phenomena which are not present in the other patient. He shows a marked thickening of the arteries and also evidence of a cerebral hemorrhage which has produced a right hemiplegia. We are not in a position to say positively the sequence of events that has led up to this arteriosclerosis and cerebral hemorrhage. We have no record of this particular patient's blood pressure ten or even five years ago. It is significant, however, that he has arteriosclerosis with an arterial hypertension. We see a great many patients with extreme degrees of arteriosclerosis who show no elevation of blood pressure whatever. Such a patient has been demonstrated on ward rounds this morning. We have been puzzled for many years as to why some patients with arteriosclerosis present no elevation of blood pressure while others show a marked hypertension.

Sir Clifford Allbutt, to whom reference has been previously made has championed a very interesting point of view which explains this phenomenon in a masterly fashion. He believes that arteriosclerosis may be simply a manifestation of the wear and tear of the body, and that such a so-called decrescent arteriosclerosis produces no symptoms, but its presence is rather to be expected.

In those of advanced years the other type of arteriosclerosis may be termed a more malignant variety. It is not the cause of hypertension but rather the result of it. According to this conception, the arterial damage which this second patient presents may be expected in time from the first patient if the course of the disease is not checked. An extended discussion of the possible cause of arteriosclerosis would lead us too far. Among the many supposed causes enumerated in the textbooks may be found syphilis, tobacco, and the "wear and tear of modern life." The importance of these three may be justly doubted. Ruffer, in his very interesting studies on the pathology of Egyptian mummies has shown that arteriosclerosis was rife in ancient Egypt more than 4,000 years ago. This was a civilization entirely unacquainted with syphilis, tobacco, or the "wear and tear of modern life." This patient then, whom we have just shown, presents a common and at times inevitable sequence of an essential hypertension. In his particular case the arterial damage has been especially marked in the brain with the result that he has suffered from cerebral hemorrhage.

The third patient whom we have to show is a colored woman of 55. She was admitted to the hospital two weeks ago complaining of swelling of the feet and abdomen, and shortness of breath.

Family History: Negative.

Personal History: The patient has enjoyed good health until the onset of the present trouble, nine months before admission. There is no history of shortness of breath, digestive disturbance, or genito-urinary trouble before the present admission. The patient has always been heavy, her average weight being 190-200 pounds.

Present Illness: A gradual onset about nine months ago with swelling of the feet, and shortness of breath. She is unable to exert herself without causing a marked dyspnoea. The patient also has frequency of urination at night, finding it necessary to get up four to six times. During the past week she has been unable to lie down in bed, and slept most of the time sitting up in a chair.

Physical Examination: She is a large, well-

nourished woman. The chest shows numerous fine moist rales, and the breath sounds are somewhat faint at the bases. The heart is increased in size, the relative cardiac dullness extends 16.5 cm. in the left 5th interspace from the midsternal line and 5 cm. in the right 4th interspace. The heart sounds are muffled and feeble. The patient's blood pressure is 210 systolic, 130 diastolic, and there is definite thickening of the radial artery. The abdomen is markedly distended and its wall quite edematous. The lower extremities show very marked pitting on pressure. The right leg measures 61 cm. about the knee, 48 cm. around the calf, and 27 cm. around the ankle. Examination of the urine shows a specific gravity of 1.020 and a large quantity of albumin present. The phenolsulphonephthalein test shows, after intravenous injection, thirty per cent in two hours. An examination of the blood shows R.B.C. 3,500,000; W.B.C. 62,000, hemoglobin eighty per cent (Dare). Blood urea was 12.6 mgs per 100 cc creatinine 1.7 mg per 100 cc.

This patient's blood pressure since admission has varied from 210 to 180 systolic, 140 to 115 diastolic. The chart of her urine secretion is of considerable interest. During the first five days after the patient's admission she voided from 380 to 800 cc; the following day there was a sudden great increased diuresis, the patient voiding 6480 cc in 24 hours. This is a very striking phenomenon often observed in patients whose flagging kidneys suddenly make a very extraordinary effort to rid the body of accumulated fluid. This marked diuresis appeared three days after the patient had been started upon diuretin. It is difficult to say whether the stimulation from this drug or the easing of the load on the kidneys by marked purgation accomplished this striking result. During the short time the patient has been in the hospital she has shown marked improvement. The past two nights she has been able to sleep all night in bed, which in itself is proof that her dyspnoea has lessened. Her blood pressure also the last two days has not been higher than 180 systolic, and 120 diastolic.

This patient then, shows an arterial hypertension and an arteriosclerosis just as the pre-

ceding patient did. Here, however, the arterial damage has not involved that portion of the arterial system supplying the brain, but has shown its effect upon the heart and kidneys. This patient has unmistakably signs and symptoms of myocardial insufficiency, enlargement of the heart, feeble heart sounds, tachycardia, and irregularity of the pulse. The dyspnoea and the edema of the legs and the abdomen may be myocardial in origin, but they also occur in diseases of the kidneys. I do not think that there is good evidence here that the kidneys are badly damaged. The phenolsulphonephthalein output is fair, the blood urea and blood creatinine show normal values, the constant presence of albumin in the urine in considerable quantities together with marked disturbance in diuresis would lead us to expect some kidney damage, although the most striking symptoms are those of the circulatory system. This patient then, shows in a very striking fashion the accuracy of the term "hypertensive cardiovascular disease."

Patients belonging to this group, a few years ago would have been diagnosed as suffering from chronic interstitial nephritis, and indeed a large per cent of them are still so diagnosed. Extended pathological studies of this group of cases have shown, however, that the kidney pathology is slight. Small sclerotic patches are found, but these changes are often no more marked in persons of the same age, dying from other causes, and showing no elevation of blood pressure and none of the symptoms characteristic of this syndrome.

Janeway has done work of particular interest and value in bringing out this point. This absence of striking pathologic findings in the kidneys was at first received with some skepticism, pathologists often berated for being unable to find what the kidneys were supposed to show. It is not surprising that such kidneys, however, show very few lesions, because after all, they are functionally practically intact.

Examples illustrating the various phases of this disorder could be shown in large numbers. Scarcely a day goes by that we do not see several patients suffering from this disorder. It is very much more widespread than



is usually thought. A good evidence of its prevalence is the increased interest on the part of the laity. The average man of today is quite as much interested in high blood pressure as he was a decade ago in cancer or tuberculosis. A very high percentage of all cases of hypertension have this trouble, not Bright's disease as so commonly thought. In studying my own cases of arterial hypertension during the past two years I have found that there were only seven per cent that actually had evidence of chronic nephritis.

The cause of this very interesting and important condition, like the cause of so many other diseases, is obscure. Abdominal arteriosclerosis, increased viscosity of the blood, disturbances of the endocrine system have all been mentioned as possible causes. Heredity undoubtedly plays a role. A very high per cent of hypertensives are markedly overweight as all three of these patients are. Focal infection may play an important role. Two of these patients show evidences of apical abscesses. The other may have had them before the fairly recent dental work was carried out. Syphilis apparently bears no definite relation to the disease. The per cent of positive Wassermanns is no greater, and in fact in my experience has been even less than the average for the population as a whole.

The prognosis in this disease varies materially with the age of the patient, the duration of the illness and his condition when first seen. The disease if seen in its early stage has a fairly good prognosis. Allbutt is very optimistic about the results achieved in treating hypertensives. If seen in a later stage its complications can at least be postponed even if they can not be entirely warded off. Among the most important factors in the treatment of this condition is the avoidance of emotional or physical strains, reduction of weight, and hydrotherapy. Among the drugs that have been used with the greatest success in the treatment of this disease are benzyl benzoate, potassium iodide, and digitalis.

There is no disease in which success of treatment depends so much upon co-operation of the patient. This point must be constantly emphasized. Treatment involves in many cases an entire change in habits and manner of life.

We are only beginning to appreciate the real prevalence of this disease and to see the malignant forms of arteriosclerosis in the light of a preventable disease.

### Clinic of Lawrence P. Engel, M.D.

Department of Surgery

#### TUBERCULOSIS OF THE BREAST

This patient, Mrs. O. (Surgery No. 25863), a white woman 45 years of age, comes in complaining of a swelling in the left breast. The first intimation of any trouble dates back five months, when she noticed a small, rather firm swelling below the nipple. There was no injury preceding this. The overlying skin was slightly reddened and there was some dull aching pain which radiated at times to the shoulder. The mass grew steadily larger and about two months later broke through the skin, discharging considerable thin yellow material. This discharge continued in small amounts for about six weeks, and then the opening healed, with, however, no diminution in the size of the mass. Following this there was a slight increase in the mass and five days ago it broke through at another point and drained the same sort of material. She has had no chills and does not think she has had any fever. There has been no loss of weight and her general health is good.

The *past history* is negative for any serious illness, but she has been always subject to colds and when a girl she suffered from a long severe cold with fever and cough. There is no history of lues.

The *family history* is important in that her father died of pulmonary tuberculosis. Her mother died of a long fever associated with severe coughing. This is very suggestive of tuberculosis. Her husband is in good health, and she has two children who have always been well.

*Physical examination* reveals a thin, fairly well developed woman. The positive findings are limited to the lungs and left breast. The right apex is sunken, and there is marked prolongation of expiration, and relative dullness over it. No rales are heard. In the lower outer quadrant of the left breast is a firm, nodular mass slightly larger than a hen's egg,

and shading off into the normal breast tissue. At one point it is very superficial, and the skin is reddened and adherent. At the upper outer margin is a sinus with a small crateriform opening discharging a small amount of thin yellow pus. A bluish discoloration of the skin surrounds this. Over the lower portion is a small dimpled scar from the healing of the former sinus. There is no retraction of the nipple, and no attachment to the pectoral fascia. Slight tenderness is complained of. The axillary lymph glands are moderately enlarged, and are rather soft and adherent. The Wassermann reaction is negative.

In arriving at the diagnosis the following conditions must be considered:

1. Carcinoma.
2. Fibro-adenoma.
3. Interstitial mastitis.
4. Actinomycosis.
5. Gumma.
6. Chronic Pyogenic Infection.
7. Tuberculosis.

With a *carcinoma* of this size we would expect to find large, hard axillary glands, retraction of the nipple, and possibly attachment to the pectoral fascia. The ulceration would be larger with indurated margin and a bloody discharge, and without sinus formation. Retraction of the nipple may be a late manifestation of tuberculosis after some fibrosis has taken place. *Fibro-adenomata* are usually well encapsulated with no change in the overlying skin and no axillary adenopathy. *Interstitial mastitis* occurs chiefly in neurotic young women, and is not accompanied by ulceration of the skin or glandular enlargement. In this condition the entire breast is enlarged. *Actinomycosis* of the breast is very rare, and is characterized by the presence of the ray fungus, and the so-called sulphur granules in the discharge. There is, as a rule, no regional adenopathy unless a secondary infection is present. A *gumma* of this size would be broken down and would not form the induration which this case presents. The negative history of syphilis, and the negative Wassermann reaction also serve to rule it out. A *chronic pyogenic process* would hardly show such a tendency toward persistent sinus formation with so

much induration and would, at an earlier time, have been more acute, with extreme tenderness, and some fever.

All of the conditions mentioned above have thus been ruled out with the exception of *tuberculosis*, and this is the diagnosis in this case. A brief review will show how well it fits in. Tuberculosis of the breast develops quite rapidly at first, and then becomes chronic in nature. Sinus formation occurs early and the discharge is thin straw colored in character. The different forms are: (1) Discrete, (2) Confluent, and (3) Cold abscess. The discrete type is that in which there is a single nodule or several nodules which remain separate. This is usually slow in development. In the confluent form there is a coalescence of a number of nodules to form a mass and the process is more rapid with early sinus formation and glandular involvement. This case is of this type. If liquefaction occurs, the so-called intramammary cold abscess of Roux is formed. In all types the regional lymph glands are usually involved early, and in fact infection of the axillary glands may precede that of the breast. Pain is usually not a prominent symptom. The sinus with its crateriform opening and thin straw-colored discharge is very characteristic of the disease.

Tuberculosis infection of the breast is either primary or secondary. Clinically it is customary to classify a case as primary when no other focus is demonstrable. This leads many times to an erroneous classification because of the fact that it is frequently impossible to detect a small hidden focus, or one that is nearly healed. Direct infection through the nipple or through an abrasion in the skin cannot be denied, but is probably very rare, so that in the true sense of the word, most cases are secondary, the infection taking place by way of the blood or lymphatics. A point in favor of the predominance of the secondary form is that the lesions are as a rule more pronounced in the alveoli than in the ducts, and that they have their beginning well in the interior of the breast. The most common primary foci are the lungs, axillary or supraclavicular lymph glands, the pleura, and the ribs. The disease occurs most frequently in young females between the ages of 25 and 35,



although it may be found in much younger or much older persons. It has been stated that it never appears after the menopause, but one case has been reported in a woman of 70. A few cases have been found in the male breast. The chief predisposing factor is, of course, an active focus elsewhere in the body. Other factors are exposure to the disease, injury and previous inflammatory diseases. In this case we have a definite history of exposure plus good evidence of an old focus in the apex of the right lung.

The prognosis in the primary cases is very good. In the secondary cases it depends upon the activity, and extent of the primary focus. The treatment varies with the form and stage of the disease, and should be as conservative as possible because of the fact that most cases occur in young women. In the discrete form, and in the early and moderately advanced stages of the confluent form excision of the mass is sufficient. If the regional lymph glands are markedly involved, or if their enlargement preceded the infection of the breast, they too should be removed. As much of the normal breast tissue as possible should always be left. Cold abscesses are treated by incision, curettage and tamponage with iodoform-glycerin. If there is extensive infiltration around them, excision is the best procedure. Removal of the breast and regional lymph glands may be required in the late stage of the confluent form in which the entire breast is diseased and there is extensive involvement of the lymph glands, but the radical operation employed in carcinoma is never justified.

Tuberculosis of the breast is probably not so rare as is generally supposed. In more than fifteen hundred cases of disease of the breast admitted to St. Bartholomew's Hospital, 1.5 per cent were found to be tuberculosis. A careful history and examination will establish the diagnosis, and a number of young women can be spared the mutilation of a radical operation.

—————R—————

The State of Health is a desirable haven for the human race, but a territory mysteriously located. Its boundaries are well defined but its location is a subject for much discussion and much speculation. Some au-

thorities locate it in the mountains, others in the lowlands. Some assure us it lies near the ocean, others are equally confident of finding it in the interior. Indefinite as its location seems to be there are many who are willing to point out the best and shortest route to this most desirable habitation. Much capital has been invested and much profit acquired in the exploitation of various routes to the State of Health. There is the patent medicine route, the mineral water route, the pure food route, the reducing route, the fattening route, the exercise route, the rest route and hundreds of others. Although all these routes are lined with pilgrims but few of them reach their destination and they seldom stay long.

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### Effective Iodine Therapy

A striking innovation in iodine therapy has been the introduction of compounds of iodine with proteins. The advocates of these organic combinations assert that they are less irritating to the digestive tract and less inclined to set up the disagreeable symptoms of iodism—such symptoms, for instance, as coryza and skin eruptions.

Iodalbin is one of the later iodine compounds intended for internal use. It is a compound of iodine and blood albumin, containing approximately 21.5 per cent of iodine. When administered by the mouth Iodalbin suffers little change in the acid contents of the stomach, but on passing into the intestine it is dissolved by contact with the alkaline secretions and on absorption exerts a physiologic action similar to that of the soluble iodides.

One great advantage possessed by Iodalbin is the fact that it is insoluble in the acid gastric contents. There is consequently less possibility of the distressing symptoms which so frequently follow the soluble iodides. Its blandness makes it acceptable to sensitive patients, and it is especially gratifying to those who object to the taste and nauseating effect of sodium or potassium iodide.

Iodalbin is manufactured by Parke, Davis & Company, whose advertisement appears elsewhere in this issue, and who offer to send descriptive literature to inquiring physicians.

## THE JOURNAL of The Kansas Medical Society

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### ANNUAL MEETING

The annual meeting of the Kansas Medical Society will be held at the State House, Topeka, Wednesday and Thursday, May 3 and 4.

See program in this issue.

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### The Medical School

For practically twenty years the physicians of Kansas—more or less loyally, more or less confidently and more or less unanimously—have maintained a mental attitude of hopeful expectancy toward the ultimate evolution of a medical school from the doubtful enterprise that was launched at Rosedale.

Begun at an inopportune time, under harassing conditions and insurmountable obstacles, located on the most unsuitable site to be found in the state, and with inadequate appropriations for its support, the medical school has been placed on the educational map—only by the unselfish devotion of the men who have been most intimately associated with its work. These men deserve all the credit, should receive all the praise and whatever of benefit may be due to them for their efforts.

It has been a thankless undertaking and a doubtful struggle with, at best, the half-hearted support of the profession in the state. It matters little now that such support was

unsolicited and seemingly undesired, for the evolution has progressed and the profession is not discredited in the present status of its medical school.

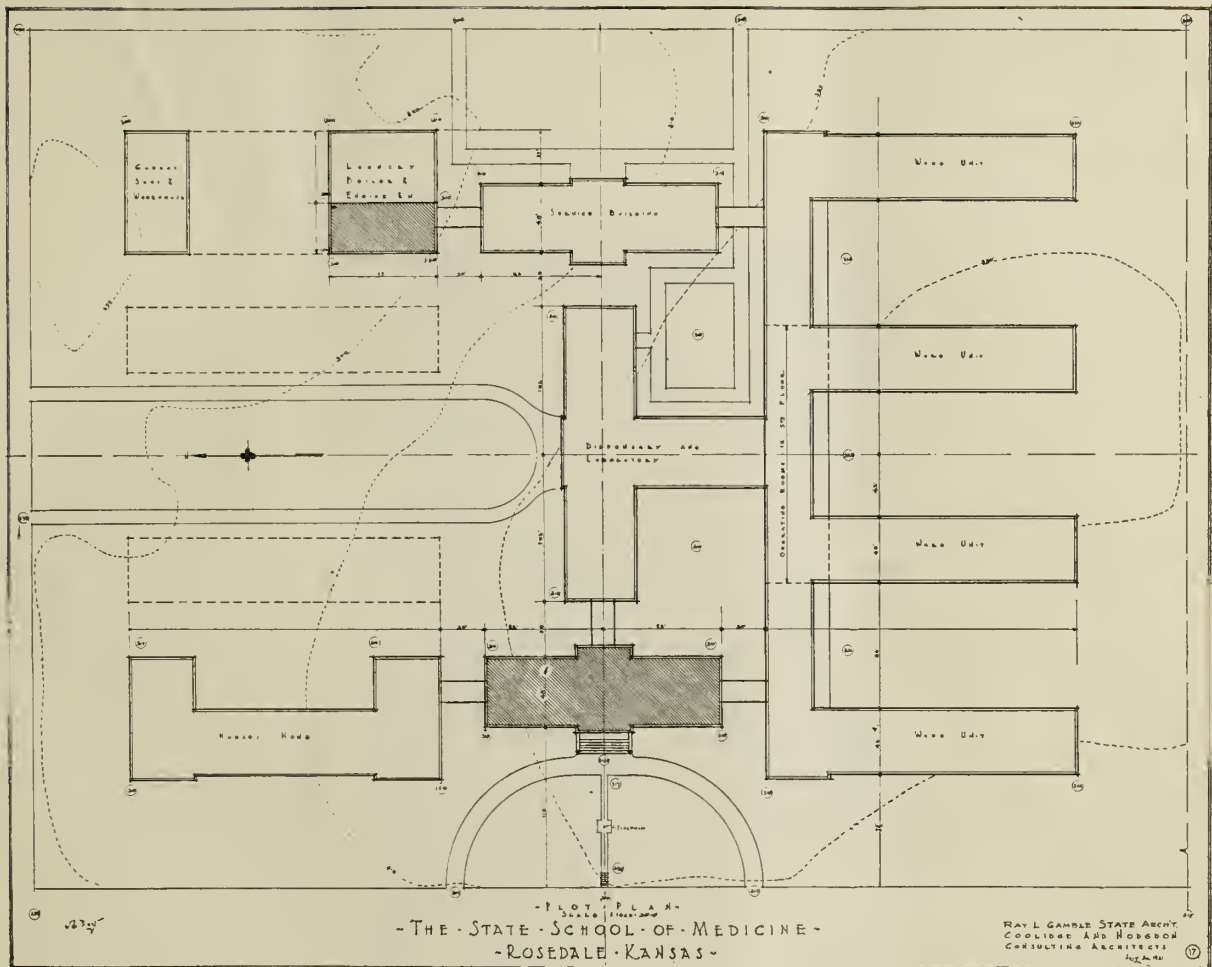
When the *Carnegie Passover* was instituted some kind friend was permitted to place the immunity sign upon the lintel of its door and it escaped the massacre. It was permitted to live—if it could. For some time the prognosis was in doubt, but now the prospect brightens, for we are assured that our medical school has become, in fact, an institution. The contract for the new building will be let on April 21. The plan of the new building and the ground plans for the completed institution are shown on another page.

The following extract from a letter received from Dean Sudler a few days ago will convey a fair idea of the present situation and the future prospects for the school.

"The contract for this building, which marks a definite step in the progress of medical education in the state, will be let on April 21. By a definite step in advance I mean that the entire problem of future development has been carefully considered by expert opinion from the point of view of developing a teaching and state hospital. The expert who made this possible is Dr. Ralph B. Seem. All of this study has meant an unconscionable delay in letting the contract; but this delay has been justified, as the study minimizes the probability of future mistakes and the building has been designed by architects who have had a broad experience in designing hospitals. I would also add that the ability to do these two things has been made possible by the broad-minded and efficient co-operation of Governor Allen, who should be given credit for this.

In regard to the development of the medical school of the University of Kansas: It has been extremely slow. As you know medical education and to a certain extent legal education were apart from ordinary university standards and practices twelve or fourteen years ago; and in a state institution it is possible to increase standards and facilities only as fast as public opinion and the co-operation of the professions concerned will permit. The educational standards have continually improved since the institution was at its low ebb in 1909, at which time nine students entered the first year class. Owing to the enormous problems with which the school was confronted in 1913, it was deemed advisable to have a committee of experts visit the institution and go

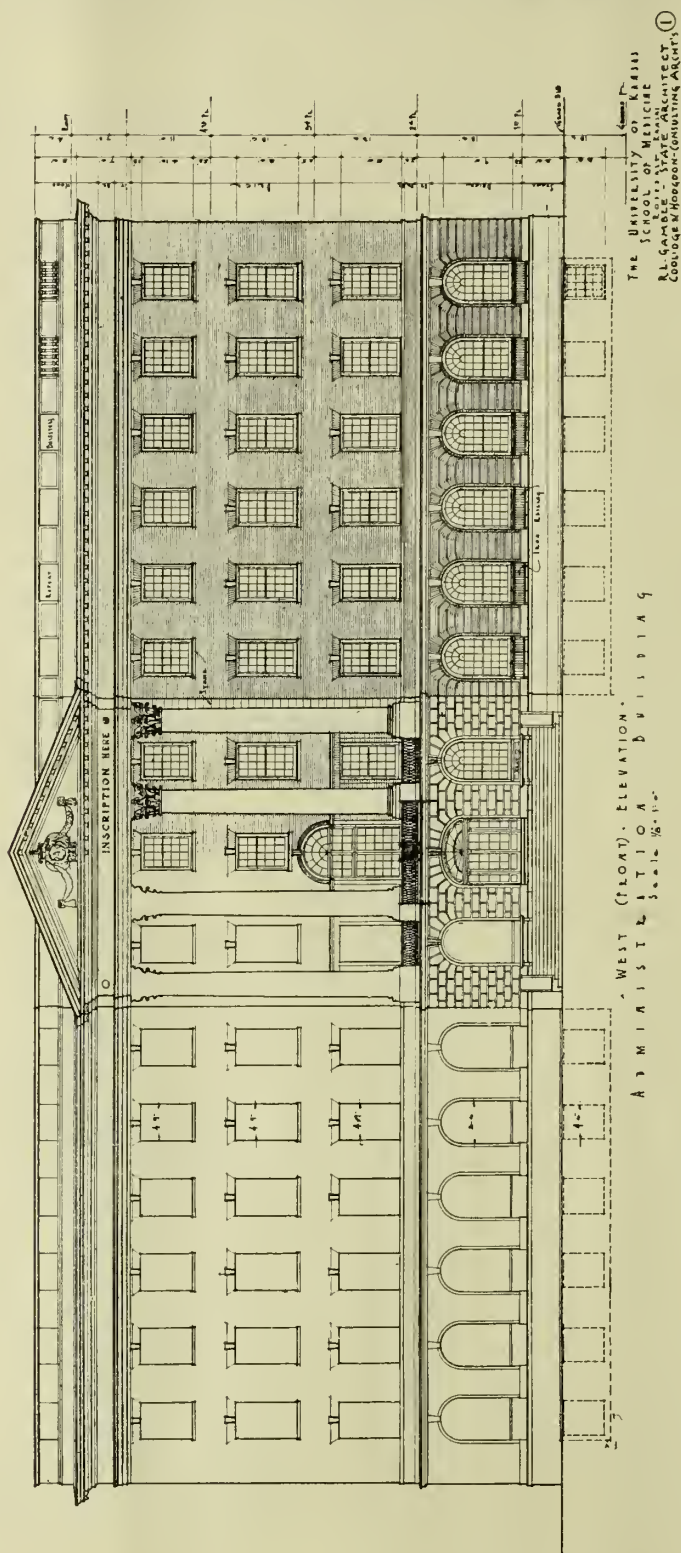




over its problems and advise its administrators. This committee consisted of Dr. John M. Dodson, Dean of Rush Medical College of Chicago; Dr. E. P. Lyon, then of the St. Louis University, now of the University of Minnesota; and Dr. F. C. Waite, of Western Reserve Medical College. The advice and outline of these men have been of great assistance in the development of the school; though as usual there was not a unanimous agreement as to the best solution of the several problems presented. Dr. N. P. Colwell, Secretary of the Council on Education of the A. M. A., visited the institution a little bit earlier and in a letter to the Chancellor called attention to the most glaring deficiencies in the school at this time. Every effort has been made to follow out the suggestions of this committee and of Dr. Colwell, who are experts in medical education. However, immediately following this, Mr. Capper was made Governor of Kansas and discouraged everything in the way of medical advancement, and it was understood even planned to abolish medical edu-

cation in the University of Kansas. Then, the war intervened and the advancement of the institution was again retarded. In the last three years, progress has been made. All of the instructors in the first two years in the medical school are now on a full time basis, devoting their entire time to teaching and research. The number of men teaching the clinical branches who are salaried has been increased with the understanding that the institution could hold them responsible for scheduled hours and times and not depend upon the vagaries of private practice, with its constant interference.

This last September, the enrollment in the freshman class was 86, in comparison to the 9 that enrolled in 1909. The total enrollment in the school is 151. There are slightly over 200 students in the College who have signified their intention to study medicine. The present facilities are not sufficient for over 20 students in the graduating class, or 25 at the utmost. The completed plan for the new buildings is based on an estimate of 75 in the





graduating class. With a single unit erected, it will be possible to take care of approximately 30 in the graduating class.

The greatest drawback and the greatest need of the medical school at present are sufficient clinical material under its own control. The facilities for handling patients have not been increased since 1914. They have continuously been taxed to the utmost, a large waiting list being constantly on the files of the hospital. It has been impossible with the facilities provided to take care of the crippled children of the state. The new building will remedy this to a certain extent.

The institution has also been handicapped by a lack of attractiveness in its hospital and an inability to keep the quarters in the best condition, owing to a lack of proper funds for repair and paint. Medical education is enormously expensive; and it has been very difficult to bring the state to realize this fact. No matter how devoted a faculty may be, in this present age such devotion cannot make up for the lack of buildings, instruments and physical facilities. It has caused constant surprise on the part of visiting educators how this institution has accomplished things in the way of medical education with the amount of money that it has had available.

In view of the above, we believe that the letting of the contract on April 21 signifies on the part of the state a willingness to provide adequate facilities for the care of its sick. One of the worries which the faculty has had is the fear that when anyone visited the institution he would go away believing that the faculty was satisfied with things as they are; that the facilities were adequate.

The medical school of the state in order to be a success must be in close touch with the profession of the state. A large amount of our clinical material should be supplied by the physicians of the state. With their co-operation it should be the place where the profession of the state can obtain (1) library facilities; (2) post graduate work; (3) hospital facilities for their patients; (4) opportunity to do laboratory work or investigation.

In the past two years, a greater amount of investigation and research work has been carried on by the faculty. More has been accomplished in the past two years than in the previous six years. This is an immensely important phase of the work of a medical school as you know. I cannot imagine a teaching institution of the first rank that does not also advance the boundaries of knowledge in the branch which it serves and which it teaches."

—R—

When a doctor thinks he is wise the chances are he is otherwise.

## Meeting of Kansas Medical Society, May 3 and 4, 1922, State House, Topeka.

*Committee on Arrangements*—Dr. Earle G. Brown, Dr. W. E. McVey, Dr. C. E. Joss, Dr. M. B. Miller, Dr. A. K. Owen.

*Entertainment*—Dinner, Wednesday, May 3 at 6:15 at Masonic Temple, given by the Shawnee County Medical Society.

*Guests*—The following-named visitors, men of national reputation, will address our meeting: Dr. Thos. Parran, U. S. Public Health Service, Dr. Jno. B. Crouch, Colorado Springs, Dr. E. H. Lindley, Chancellor Kansas University, and Dr. Frederick Tice, Chicago.

*Exhibits*—Display of instruments, books, pharmaceutical preparations, x-ray apparatus, etc., third floor State House, the same floor as Representative Hall.

*Hotels*—National Hotel, Throop Hotel, Hotel Thorne, Chesterfield Hotel, Fifth Avenue Hotel, Reed.

*Meeting of County Secretaries*—There will be a meeting of the Secretaries of all County Societies on Wednesday evening May 3rd, immediately following the meeting of House of Delegates.

*Meeting of the Council*—The Council of the Kansas Medical Society will meet in the Senate Chamber, State House, Wednesday, May 3rd at 8:30 A. M.

*Meeting of House of Delegates*—House of Delegates will meet in Representative Hall, State House, Wednesday, May 3rd, 7:30 P. M. *This will be an open meeting and all members of the Kansas Medical Society are invited to attend.* The following order of business will be observed:

Reading of the Minutes of last meeting.

Reports of Secretary, Treasurer and Councilors.

Reports of Standing Committees.

Reports of Special Committees.

Report of Committee on Arrangements.

Unfinished Business.

New Business.

## THURSDAY, MAY 4TH

Meeting of House of Delegates at 8:30 A. M. in Senate Chamber, State House:

Roll Call.

Election of Officers:

President.

Three Vice Presidents.

Treasurer.

One Delegate to A. M. A.

Councilor for the Third, Sixth, Tenth and Twelfth Districts.

PROGRAM—MAY 3, 8:30 A. M.

"President's Address," Dr. C. S. Kenney, Norton.

"Some Atypical Surgical Cases," Dr. R. C. Dugan, Ottawa. Discussion opened by Dr. C. C. Nesselrode, Kansas City.

"Maligancy, and its Treatment," Dr. L. D. Johnson, Chanute. Discussion opened by Dr. P. S. Mitchell, Iola.

"Public Health Progress and Needs," Dr. Thos. Parran, U. S. Public Health Service.

"Atresia of the Vagina," Dr. L. F. Barney, Kansas City. Discussion opened by Dr. D. W. Basham, Wichita.

"Goiter," Dr. J. T. Axtell, Newton. Discussion opened by Dr. R. Claude Young, Arkansas City.

"Notes on Treatment of Vernal Conjunctivitis," Dr. J. R. Scott, Ottawa. Discussion opened by Dr. C. S. Trimble, Emporia.

"Ophthalmic Therapeutics," Dr. James W. May, Kansas City. Discussion opened by—

"Marked Displacement of Chest Organs"—Clinical Case, Dr. Seth Hammel, Topeka. Discussion opened by Dr. J. N. Beasley, Topeka.

"Treatment of Pulmonary Tuberculosis," Dr. W. S. Hunter, Norton. Discussion opened by Dr. Ralph Major, Rosedale.

"False Conceptions Concerning Pulmonary Tuberculosis," Dr. Jno. B. Crouch, Colorado Springs.

"Ileus," Dr. W. E. Mowery, Salina. Discussion opened by—

"Mucous Colitis," Dr. E. C. Grigsby, Coffeyville. Discussion opened by—

"Corneal Ulcers," Dr. J. H. Schrant, Hutchinson. Discussion opened by—

"The Recurring Tonsil," Dr. L. B. Spake, Kansas City. Discussion opened by Dr. C. M. Brown, Kansas City.

"Some of the Newer Problems in Bronchoscopy," Dr. E. M. Seydell, Wichita. Discussion opened by Dr. Chas. L. Williams, Topeka.

"Anxiety and Fear, Normal and Abnormal," Dr. L. C. Bishop, Wichita. Discussion opened by—

"Functional Diseases vs. Organic Disease and Visual Field in Functional Nerve Diseases," Drs. Geo. E. Paine and H. L. Scales, Hutchinson. Discussion opened by—

"The Use of Bone Plates and Nails in Fractures of the Femur and in Joint Fractures"—Lantern Slides, Dr. E. E. Morrison, Great Bend. Discussion opened by Dr. R. Y. Jones, Hutchinson.

"Upper Femoral Fractures," Dr. E. D.

Ebright, Wichita. Discussion opened by Dr. J. D. Riddell, Salina.

"Medical Education and the State," Dr. E. H. Lindley, Chancellor Kansas University.

"Gold and Mastic Reactions," Dr. H. A. Lindsay, Topeka. Discussion opened by—

"Relationship of Orthopedics to Neurology," Dr. Robert K. Werndorff, Wellington. Discussion opened by Dr. Karl Menninger, Topeka.

Program incomplete at this time.

—————-R-—————

### Medical Courses to Be Offered in the Summer Session of 1922 in the Kansas University School of Medicine

These courses are designed especially to meet the needs of the general practitioner who wishes to brush up in medicine and become acquainted with recent advances in medical science and to give him experience and a better insight into the value of modern clinical and laboratory methods of diagnosis and treatment.

Three courses will be offered by the Department of Medicine. Each course will be given two mornings a week during the session. One will be given by Dr. Russell L. Haden, who has charge of the clinical laboratory diagnosis and metabolic clinic of the university hospital. His course will include practical work in basal metabolism, blood chemistry and serology. The value of blood sugar tolerance tests in diabetes and blood urea and creatinine determinations in nephritis are two of the instructive subjects scheduled. In addition, ample opportunity will be given to acquire skill and experience in such elementary procedures as blood counting, examination of blood and sputum smears, gastric and duodenal analysis, urinary examinations, bacteriological methods, Schick test for diphtheria, etc. The work of the course will be arranged where possible to fulfill the needs of the individual physician without compelling him to stay the entire six weeks if only able to remain a few weeks.

Another course will consist in a series of bedside clinics and ward walks by Dr. Peter T. Bohan, Professor of Clinical Medicine. This will include a thorough discussion of the differential diagnosis and therapy supple-



mented by fluoroscopic findings, x-ray, Wassermann test, metabolism studies, etc.

The third course will be given by Dr. Ralph H. Major, Professor of Medicine. This course will place special stress on physical diagnosis. Patients will be assigned to members of the class who will make their own physical examination followed by a general discussion of the case. A constant effort will be made to show that an accurate diagnosis and successful treatment may be made without more than the equipment found in the average practitioner's office.

The Department of Pathology will offer a course in autopsy technic, tissue diagnosis and functional pathology. This will be given by Dr. H. R. Wahl, Professor of Pathology. Special emphasis will be placed on the pathological basis of disturbances in function and a close correlation with the clinic will be maintained. When an autopsy is performed a conference will be held with the clinical men in order to compare the findings of the clinic with those of the postmortem room.

While the above four members of the staff are specially planning work for the graduate physicians, all students enrolling in the summer session will be welcome and given instruction in the clinics given by other members of the staff, such as Orr, Francisco, Sudler, Ockerblad, Curran, Hall, Hertzler, Guffey, Walthall.

The only fee required is the regular summer session fee of the university which amounts to ten dollars. The session will begin June 12 and end July 24. While attendance throughout the session is most desirable, enrollment for a shorter period should prove profitable. For further information address the Dean of the Medical School at Rosedale.

### --- R --- The Nurse Problem

Granting that the supply of a sufficient number of efficient nurses for the needs of the hospitals, the doctors and the people is a problem; it remains in doubt whether it is the nurses' problem, the doctors' problem or the hospitals' problem.

While the training schools are offering special inducements for pupils and the hospitals are working their nurses over time, the argu-

ment between the nurses and the doctors, as to whether the educational standard is or is not too high, shows no sign of terminating. The nurses very properly feel that to lower their educational standard will lower their standing as a profession—for they regard nursing as a profession. On the other hand men of high attainments in the medical profession express freely the opinion that the standard of requirements is too high and that nurses are now too highly trained for most of the duties required of them. The hospitals, many of them at least, are suffering because of this lack of harmony; or rather the failure of the doctors and nurses to find common ground upon which a campaign for more nurses might be inaugurated.

The nurses desire to maintain the educational standard they have with great difficulty established, and it would seem to an unprejudiced mind that this problem is particularly their's. It is an excellent opportunity for the nurses to preserve all the ground they have gained—if they can devise some plan by which the training schools will be more attractive to girls properly fitted for the course. Since the hospital is the basis for the training school its needs must always be taken into consideration.

While it is possible to shorten the course of training to eighteen months without lowering the efficiency of the output below the present standard, the adoption of such a course would necessitate the enrollment of at least twice the number of students now required for the hospital service, and it would also require the employment of a sufficient number of registered nurses to act as supervisors.

The solution of the problem, if it is a problem, that seems to meet the approval of the doctors is rather strenuously opposed by the nurses. This contemplates the introduction of cadet nurses, or partially trained nurses who might be able to perform part, at least, of the duties usually expected of a fully trained nurse. It is proposed that the training schools accept students for short courses of training—three or six months—after which they would be utilized in the hospitals for service under the direction of a graduate nurse, and in

homes for the care of cases requiring no particular skill. Unless some better plan is offered by the nurses, or unless the demand for girls in other lines of endeavor shall greatly diminish, it is not unlikely that the problem will be solved by the introduction of cadet nurses. It is certainly not the best solution, nor does it seem likely to prove satisfactory to the doctors or their patients, but it does promise some sort of service to those in need when skilled service is unavailable.

The hospital is a factor of some importance in the final solution of this problem, not only in the matter of service rendered by the student nurses, but the economic relation of the training school to the hospital. At one time it was generally assumed that the hospital was considerably advantaged financially in conducting a training school. While in some hospitals this may still be true, in many others the training school is a financial burden that it feels under obligation to carry. The expense of feeding, housing and clothing the student nurses in some hospitals is certainly much greater than would be the expense of employing a few supervising nurses and a sufficient number of cadets or assistants.

It would certainly not be inappropriate for the nurses and the doctors to co-operate in the solution of this problem as they are expected to, and do, co-operate in the care of the sick.

—R—

### Suggestions by the Prodigal

Stomach and intestinal troubles constitute more than one-half of the diseases of civilized man. They are functional in the beginning, as a rule, but in time become pathologic. The cause of the trouble is the food eaten. Uncivilized peoples are comparatively free from digestive disturbances. The same condition is present in the teeth of civilized peoples—diseased. The higher the order of civilized life the poorer the teeth and an everlasting continuous tinkering with them. The lower in the scale of civilized life and including the brute creation, the better the teeth.

What is the remedy? Change in the way of eating, in the character of the food, in the complexity, consistency, in fact learn from the uncivilized and the brute animal what to

eat, how to eat, and when to eat. Study the eating habit of the ordinary dog. He will not eat unless he is hungry. He gives his stomach the proper rest. He prefers hard bread to soft. He prefers a bone with meat on it to boneless meat, and will gnaw and eat the soft part of the bone and harden his teeth. The uncivilized man eats nuts, raw food and foods he has to gnaw and chew. This kind of hard food, eaten by dog and savage, keeps the teeth hard and firm and the food being natural keeps the alimentary organs in a natural condition.

Will the so-called civilized people do this? No, not all at once. Then what's the use of calling attention to something they will not do? Because their method of eating and what and how they eat is injuring them. Because the physician knows it and is his neighbor's keeper. Knowing these things and occupying the position he does, the physician voluntarily places himself in a position as guardian to the health and in a large measure the happiness of his clientele—his fellow man.

It is a big job? But every physician has said by his action that he is willing to tackle the job and do his level best. The physician who fails to do less is recreant to his trust. He knows the cause of the trouble; he knows his duty; he knows that in the majority of internal ailments his remedies are palliative only, and that while the palliative course is the one of least resistance, that the road to real success and his duty, in addition, is to teach by precept, example and practice his patient these things. It is not an easy thing to do. But it is worth the fight. Ignorance on the part of his patient is the big thing to overcome. This ignorance may be dense, willful or otherwise, as illustrated by the advice of a dietitian to a patient whom he has put on a restricted diet and the patient kept getting worse. On inquiry he learned that she had followed his dietetic instructions to the letter—eaten just what and how he had directed. He bethought to ask: "Well, what else have you eaten?" Answer: "Not a thing but my regular meals."

Moral: "Man is what he eats."

(a) And a man is not a progressive worth-



while physician today who sits back painfully erect on his palliative haunches.

The secular press states, "That the New York Health Department has abandoned fumigation of the sick room." Has fumigation of the sick room been another case of doing to be doing, without knowing? The probability is that fumigation did more good than harm. It made a bluff at clearing up, at least. The cause of failure in getting good results, evidently, was in not being able to carry out the technic or the poison gas that kills the disease producing organism in man has not been found. The principle of fumigation is correct.

The horticulturist has demonstrated the benefit of fumigation in protecting his orchard from destructive organisms—parasites. Take for example a citrous orchard. Its worst enemy is black, red and purple scale. If let alone it will soon render an orchard worse than worthless. But the citrous man with a tape line takes the dimensions of the tree he is about to fumigate, places a tent over the tree, reaching the ground all around it, and enclosing the tree air tight, sticks the nozzle of a hose under the canvas on the ground and discharges so many cubic feet of cyanide of potassium vapor under the canvas from a tank and lets it remain a certain length of time and the scale is killed. The cyanide vapor is carted around in the orchard from tree to tree in a tank. Care has to be taken not to use too much of the vapor on a tree or it will kill the fruit.

The average fumigation of a sick room or home as practiced is a failure. Not so with the horticulturist in his orchard out in the open. It is in the technique the medical man fails. Has the right bug-killer agent not been found to do for man what the orchard and gardener have found and use successfully in protecting fruit and vegetables? The chances are that the deadly poison gas that kills the disease producing organisms in man has not been found or the technique is too coarse, or both is the cause of failure of the New York Health Department's getting satisfactory results and abandoning the fumigation of the sick room. Whereas the horticulturist has

succeeded in saving the life of his tree by killing the parasite by fumigation.

As yet the horse appears to be on the medical man.

—————R—————

### In Memoriam of Dr. L. H. Munn

J. E. MINNEY

It is with mingled sorrow and pleasure that I speak of Dr. Munn. Sorrow for the absent one is human and selfish. We know that their condition and environment is bettered by the change which is evolutionary—progressive. Being deprived of their immediate presence and association it is pity for ourselves for the loss and we call it sorrow because we feel the deprivation so keenly.

It was the Hebrew poet, Job, who propounded the question, "If a man die shall he live again?" Reason answers, "If man does not live again he will not know it and nothing matters."

Job had lived long enough and had an experience which aroused suspicion into inquiry. For as yet the ancient Hebrews believed that a man lived again only in his influence and in his children.

Dr. Munn is freed from the fetters that bind us to earth and has winged his way to the eternal. He has crossed the divide. He has penetrated the veil. He is now a sojourner in that country from whose bourne no traveller has returned. There he awaits us, busy in accommodating himself to his new environments, anticipating our coming.

Respecting his life and work while sojourning with us it can be said of him that he was a good husband, neighbor, citizen and financier. Professionally he was a good physician and surgeon and a wise counsellor. His was a successful life. In his character, his was a clean cut, well marked, distinct, outstanding personality. And yet with it all he was reticent, unobtrusive and in a medical society his presence was felt rather than his voice heard. Although when occasion called for action he was not found wanting. He was sympathetic and as tender and forgiving as a child. Although quick to resent an insult he was equally ready to forgive an offense when forgiveness was asked. He was big enough to acknowl-

edge his faults and was his own severest critic when he made a mistake.

He was honored by his fellows and an honor to them in return. The world is better off because he was in it for a short time.

I liked to call him "Munn" because I thought his name bigger than the title. He always called me Minney, and I felt honored by him in addressing me by my family name. I cannot forget a few reminiscences which portray the real "Munn" and make him human and present to me.

At a banquet of physicians and their wives, I was toastmaster and he bore down on me a little severely in his jokes and remarks. The next morning after the banquet and before he went to his office he called on me. His manner of approach and expression of countenance was a study and evidently I showed surprise. He extended his hand and began rather hesitatingly and said in substance, "Minney, some of my friends think, and I guess they are right, that I said some unkind things to you last night. I am sorry if I offended you and want you to forgive me. You know those we love best we are too free with at times." The intonation of his voice, expression of countenance, his general demeanor were such that with strong effort I held back the tears, and in broken voice assured him that such a thought as insult had not entered my mind. We shook hands and with "Am glad of it," he appeared to be greatly relieved. We shook hands again and he was gone.

I told him a little white lie, but believe that the occasion justified it and that God immediately wiped it away with a tear. For I felt badly at his words but it was more than antidoted by the divine act of Dr. Munn. Coming to me as he did, in the full vigor of his manhood, for it was at least a quarter of a century ago, to acknowledge a supposed offense and to ask forgiveness was none other than living the spirit of the lowly Nazarene. That act of Dr. Munn's has been an inspiration to me ever since that day. And now in my declining years, of over three score and ten, nothing has occurred to me in life's journey to which memory clings more dear.

Soon after I located in Topeka (1885) Munn called me in consultation in a case of iritis in a syphilitic patient. On the way he said, "It is a case of iritis and was doing nicely but fool like I thought I had to do something, and I did. I dusted some calomel in his eyes and he being saturated with iodide of potassium the chemical burned him like fire and he yelled in pain." He censured himself on the way to and from the patient's home.

Dr. Munn was not orthodox in his belief and yet he had the confidence of the orthodox clergy to a remarkable degree. "Munn" had operated on a dyed in the wool orthodox minister. In conversation one day with this preacher he spoke of Munn's ability as a surgeon, what he had done for him and closed our conversation by saying "Munn" swears but he is not profane. I was lead to believe by the minister's conversation that he would rather hear "Munn" swear than to hear some of his parishoners pray.

"Munn's" merit overshadowed his shortcomings, in the mind of the minister, and charity covered the latter like the water covers the great deep. Faith, hope and charity (love) but the greatest of these is charity (love). "For faith ends in sight, hope in fruition but love extends beyond the grave."

"Munn" always called on me when he visited Los Angeles. The time before his last visit he examined my son, at my home, who was bedridden by a diagnosed case of ulcer of the stomach and was fasting for relief from pain and the curative effect of rest. "Munn" said, "I do not know what the trouble is but I do not believe there is ulcer in the stomach."

Subsequent examination with the fluoroscope proved it to be a case of pyloric spasm. Belladonna relieved the pain (spasm), liquid Petrolatum (heavy) was used as the lubricant and the stomach trouble was relieved.

In writing a little for The Journal of the Kansas Medical Society under the pseudonym of "The Prodigal" an article with titles "Where to Locate," "To the Young Doctor," "To the Older Doctor," "Should I Change My Location?" Munn was especially pleased.



He thought Dr. O. P. Davis was "The Prodigal," commended the paper highly and congratulated Dr. Davis for the effort. Dr. Davis, like the gentleman that he is, wrote Dr. Munn, "I am not 'The Prodigal' but it is our old friend 'Minney.'" "Munn" sent the letter to me with a P. S. at the bottom of the letter, "I am glad it was you, Minney."

About a year ago he wrote me saying, "I like your articles and comments in the Journal, but they do not seem to have the pep in them as of old." I wrote him that "those that looked out of the windows were becoming darkened, that the grinders were becoming few and it was time that the silver cord be loosened and the pitcher broken at the fountain and the wheel broken at the cistern. Then shall the dust return to the earth as it was and the spirit shall return unto God who gave it."

He was blunt, fair and truthful to me. My letter saddened him. He evidently felt the hand of time pressing upon him heavily and the time of his departure near at hand.

Such is an epitome of memory's offering to my friend who has passed beyond the bounds of time and space.

"But what there is beyond this life

As yet it does not seem

We look to where death's curtain falls

And enter but to dream."

My contribution with affection to the memory of Dr. L. H. Munn.

—R—

### CHIPS

A pair o' Docs—The way to get to the top is to go to the bottom.

A synthetic diagnosis is used in about one-half of the cases.

One profession teaches that it is what comes out of a man's mouth that gets him in bad. Another profession teaches that it is what goes into a man's mouth that gets his goat.

In Eugenics we C the way you and me "Sang Blue" (blue blood) can conserve and our safety preserve from the "Heathen

Chinee." One baby in four all the world o'er statistics agree is a "Heathen Chinee." Hence in families we C children one, two and three, that there may be no mishap to the paternal map by (a baby) "Heathen Chinee." Don't U C?

Mike—"What keeps the brick together in a wall, Pat?"

Pat—"Shure an' it's tha morthier."

Mike—"Wrong, me boy. It's the morthier that keeps them apart."

Since the advent of prohibition it is now definitely known that "the increased alcohol death rate shortens life," and that "fatal diseases are the worst."

According to the figures of the Metropolitan Life Insurance Company 1642 policy holders died from automobile accidents in 1921. There were also reported 107 deaths from collisions between automobiles and trains and street cars, which if included make a total of 1,749 or a death rate of 12.7 per 100,000. The death rate from railroad accidents during 1921 was 3.4 per 100,000.

One who has never made a mistake is one of small experience; one who is conscious of his own infallibility is unsafe; but one who parades his mistakes before his fellows, ostensibly for their improvement is usually an egotistical ass and displays more ignorance than acuity.

The Medical Society of King's County, New York, has inaugurated a series of weekly meetings which are held each Friday afternoon at five o'clock. The program is adapted to the needs of the general practitioner, affording a valuable course of post-graduate instruction. These meetings will be continued from March until May. The large attendance demonstrates the appreciation of the profession.

The twenty-third annual meeting of the American Proctologic Society will be held at Hotel Claridge, St. Louis. May 22 and 23. A very interesting program has been prepared.

A cordial invitation to attend is extended to the profession.

Dr. Alexander Irvine (Virg. Med. Monthly, July '21) says that syphilis stands next to tuberculosis as a cause of death and that national circumcision would prevent forty thousand deaths each year in the United States. He claims that infection usually occurs through abrasions on the foreskin and circumcision renders the parts tough so that abrasions seldom occur. On the other hand, Dr. M. A. Zoekler, Persia, testifies in a letter to the Journal A.M.A. that circumcision does not prevent infection. He says that in Persia where circumcision is practiced among the Jews and Mohammedans syphilis is "frightfully common."

In these days, and for some years past, a great deal has been said and written about State Medicine. We are told that it is a menace to the medical profession and methods must be employed to prevent its encroachment upon our rights and privileges. State medicine is impossible without the co-operation of the medical profession, and yet state medicine is potentially a fact. The great expansion in the scope of activities of the Public Health Service and the multiplicity of functions it has assumed only anticipate its ultimate domination in the medical field. There is but one conclusion and that is that the medical profession is not opposed to state medicine.

The physicians of Kansas City have arranged for special sleepers for the A.M.A. convention at St. Louis. These will be attached to the regular Alton-Burlington trains leaving Kansas City at 11:55 p. m. on Saturday, Sunday and Monday nights. Physicians in surrounding towns desiring reservation on any of these should write the Secretary Jackson County Medical Society, care of the Kansas City General Hospital.

It is generally accepted that a well-balanced diet provides the individual with such vitamins as are necessary to maintain growth and nutrition. The British Medical Journal in a leading editorial reiterates the statement that an abundant supply of vitamins exists in all

fresh vegetables and that a considerable quantity occurs in milk and meat, provided the latter substances are obtained from animals fed on fresh foods. A normal adult living on an ordinary diet containing a reasonable proportion of fresh vegetables is, therefore, certain of obtaining a plentiful supply of vitamins. Of all the mass of evidence which has accumulated relative to these substances, this fact is the point of greatest importance. It is, however, very unfortunately, the one point which those commercially inclined are unwilling to recognize.—Jour. A.M.A., March 11, 1922.

A Topeka doctor recommends a soundless phonograph for his loquacious patients—in line with Edison, who promises an insectophone, an instrument that will enable a person to hear ants and cooties talk.

Edison should be enjoined. A man thatched with the ordinary pediculus capitis has no time to listen to their conversation and further if he had a reasonably balanced mind it would be unhinged by their musings. Hence our opposition.

The waist line is to be vacated. This will require the more frequent use of the (male) strong arm. Fashion has put aside the corset.

Heifers are being made of old cows by the goat gland route. It solves the milk question.

A woman poultry raiser at Bellingham, Washington, has succeeded in crossing a Rhode Island Red hen and a small white turkey gobbler. Hence the fowl is neither a turkey nor a hen and she has named it *turken*. Her six turkens averaged 221 eggs each last year. It is no more an experiment. When grown the birds weigh from 9 to 14 pounds. The eggs weigh 26 ounces per dozen, and in taste and appearance are much like the Rhode Island Reds' eggs. They hatch in 21 days. They do not desire to roam. The meat of the turken in taste and flavor is the same as that of the turkey. Wonders never cease. There is hope for the mule.

Veratrum Viride in Pneumonia—Medical opinion is averse to the routine use of veratrum viride in the treatment of uncomplicated pneumonia. Claims made for the use of vera-



trum viride are advanced for other drugs, none of which has borne critical investigation. The error on the part of those who make these claims is the result of inadequate control observations. Advocates of veratrum viride, aconite and venesection believe that by the depression of the circulation produced by the treatment, they may lessen the extravasation of blood into the air vesicles and to this degree lessen the involvement of the lungs. The lack of demonstrable success of venesection has led to the discarding of this once almost universally employed mode of treatment of pneumonia. It is unreasonable to expect as much or more from aconite or veratrum than from venesection.—*Jour. A.M.A.*, March 18, 1922, p. 835.

Shout the Gland tidings  
Boost them along;  
Goats are in hiding  
In bush and in thong.

Mighty ye masters  
With knife or scalpel,  
Averting disaster  
Of age, so dimmed well.

With transfer of goat  
Sheep, monkey or shoat  
The gland tidings of youth  
Are transferred to the bloat.

The dates for the next two examinations of the National Board of Medical Examiners are as follows: Part I and II, June 19, 20, 21, 22 and 23, 1922. Part I and II, September 25, 26, 27, 28 and 29, 1922.

Applications for the June examination should be in the Secretary's office not later than May 15th, and for the September examination not later than June 1st. Application blanks and Circulars of Information may be had by writing to the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

Here comes a dietitian who says that "raw eggs are very hard to digest, and many cannot digest them at all. They are an antidote for poisons, that are quickly absorbed. Eggs are unbalanced food. The white is almost pure albumen. The yolk contains too much

phosphorous, which over stimulates the nervous system, especially the sex organs. To feed children eggs is a crime."

It is a fact that lecithin, the camera fluid of the brain, is obtained largely, from the yolk of the egg. But rationalism is not a virtue of the *Krank*. Some of us have such active minds that they prove to be re-tro-active.

American sea captains have not been slow in availing themselves of the medical wireless advice offered by the U. S. Public Health Service. Hospital No. 70 (Hudson Street, New York) reports the arrival at 10 o'clock at night of a message from the steamship Chester Valley saying that a man on board was suffering from pain in the abdomen, persistent vomiting, and inability to lie down owing to the pain. The officer of the day promptly prescribed treatment, and the next morning the ship wirelessly thanks, saying that the patient was much improved.

An old granger in the Kansas legislature always voted to legalize the practice of the Homeopath, Electropath, Hydropath, Osteopath, Alopah and every and any kind of medical path "because," as he said, "they all lead us to the same path."

Alienists are on a par in diagnosing the abnormal mind with physicians in diagnosing physical ailments. In either case the count stands 50-50.

But when it can be said of a man "he was right half the time," he is above the average in the daily grind.

Physicians are all superstitious. At any rate they all use characters of superstitious origin in writing prescriptions. How many of us ever think of the origin of their "R" character, the first one used in writing a prescription. "This character is reputed to have been originally the same as the symbol of Jupiter, which was placed at the top of the formula to propitiate the King of the gods, that the compound might act favorably." That was the origin of polypharmacy? No.

Through the courtesy of the General Electric Company, five-minute health talks pre-

pared by the State Department of Health will be broadcasted twice each week from Radio Station W.G.Y. (Schenectady.) The first talk is scheduled for Friday evening, March 24, at 7:40 p. m. These health messages can be heard by any one possessing a suitable wireless telephone receiving set.

Friday's talk will mark the beginning in New York State of the use of the radio for broadcasting useful and beneficial health information directly to the public. How valuable is this means of getting important facts before the people can be judged from the report that several hundred thousand receiving sets have been sold in New York City during the last few weeks.

The American Society for the Control of Cancer in November 1921 opened its Cancer Week Campaign in Denver by a wireless telephone lecture which was heard on the Pacific Coast. This was perhaps the first instance of the use of this unique method for purposes of public health education. The United States Public Health Service began to broadcast health talks from the Naval Radio Station at Washington in December, 1921. It is believed, however, that the New York State Department of Health is the first official state health organization to prepare and use radio health talks in its work for the preservation of health and the prevention of disease.

The national Research Council announces the establishment of Fellowships in Medicine created for the purpose of increasing the supply of thoroughly qualified teachers in medicine in both clinical and laboratory subjects and in both curative and preventive aspects. The fellowships are supported by appropriations of the Rockefeller Foundation and the General Education Board amounting in total to one hundred thousand dollars a year for a period of five years. Those receiving awards will be known as Fellows in Medicine of the National Research Council.

To qualify for appointment as a fellow, a candidate must have the degree of Doctor of Medicine or Doctor of Philosophy from an approved university, or preparation equivalent to that represented by one of these degrees. Only citizens of the United States or Canada

will ordinarily be appointed, although the fellowship board is authorized to set aside this provision in exceptional cases. The fellowship will be open to both sexes.

Since the principal purpose of establishing these fellowships is to increase the number of competent teachers in the field of medicine, each incumbent will be required to gain experience in teaching. As creative work is regarded as essential to the best teaching, emphasis will also be placed upon research.

Fellows will be at liberty to choose the institutions or universities in which they will work, as well as the men under whose direction they will carry on their researches, subject to the approval of the fellowship board.

Appointments are to be made for a period of twelve months, beginning at any time in the year, with an allowance of six weeks for vacation. The time may be extended, however, if in the judgment of the board the work which the fellow has done justifies it. The stipends are not definitely fixed in amount; but they are intended to enable the individual to live comfortably while carrying on his special work as a fellow.

The fellowships will be administrated by a special committee, known as the Medical Fellowship Board of the National Research Council.

Correspondence concerning the fellowships should be addressed to the Division of Medical Sciences, National Research Council, Washington, D. C.

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## SOCIETIES

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### Decatur-Norton County Society

A regular called meeting of the Decatur-Norton County Medical Society was held at the Cozy Theater, Norton, Kansas, Thursday, March 2, 1922, at 2 p. m., with the following program:

"Essentials of Dental Radiography" (Illustrated with lantern slides), C. E. Virden, Norton.

"Fits," Karl Meninger, Topeka.

"Venereal Diseases," (Illustrated by motion pictures), B. J. Kilbourne, V. D. Div. State Board of Health, Topeka.



Dr. Kennedy being called away, his paper was not read.

A general discussion followed all these papers.

The following members were present: H. O. Hardesty, R. M. Tinney, W. C. Lathrop, C. E. Virden, F. D. Kennedy, C. S. Kenney, W. S. Hunter, C. W. Cole, F. E. Gaither, Dr. Wood, A. A. Allen, F. H. Smith, E. J. Beckner.

Doctors Karl Menninger, B. J. Kilbourne, and W. R. Aldrich were visitors.

Dr. A. G. Flickenstein, of Herndon, Kansas, was elected a member of the Society.

A 6:30 dinner was given by the members of the local fraternity to the visiting doctors, at the Van Alman cafe.

C. S. KENNEY, Secretary.

### Central Kansas Society

The Central Kansas Medical Society held its first quarterly meeting at Hays, Kan., February 25 in St. Anthony's Hospital.

President Blake called the meeting to order and the following members were present: P. C. Anders, B. Anderson, J. B. Betthausen, C. D. Blake, J. B. Carter, Geo. F. Davis, O. A. Hennerich, C. H. Jameson, F. K. Meade, Clair S. O'Donnell, R. A. Stewart, D. R. Stoner, Leo V. Turgeon, Dr. Unrein, M. S. Gregory.

The following program was read:

Health and Accident Insurance, Dr. B. Anderson, Victoria, Kan.

Otitis Media, Dr. O. A. Hennerich, Hays, Kan.

Clinical Cases, Dr. J. B. Betthausen, Hays, Kan.

Some of Etiologies of Hysteria, Dr. M. S. Gregory, Gove, Kan.

Allergy in Internal Medicine, Dr. W. W. Duke, Kansas City, Mo.

The main paper of the day by Dr. W. W. Duke, of Kansas City, Mo., was read following the banquet at Hays Hotel and was well attended and was enjoyed by all the members present as it was something new to many of the members and his paper was followed by many questions asked by all the members present. Dr. Duke was given a rising vote of thanks for the splendid paper and was invited to meet again with the Society at some future date.

At the business meeting the following new members were admitted: M. S. Gregory, Gove, Kan.; J. U. Catudal, Plainville, and H. S. Durrett, Ellis, Kan.

The following were admitted by transfer from other societies: J. A. Burnett and W. Y. Herrick, of Wakeeney, Kan.; Lottie F. Law, J. A. Bundy and Ivan B. Parker, of Hill City, Kan.; E. D. Beckner, Hoxie, Kan.; H. W. Butler, Winona, Kan.; W. E. Carey, Russell Springs, Kan.; Hugo E. Nelson, Sharon, Springs, Kan.

The following officers were elected for the year: President, D. R. Stoner, Ellis, Kan.; Vice President, A. O'Donnell, Ellsworth, Kan.; Secretary-Treasurer, Leo V. Turgeon, Wilson, Kan.

The next meeting is to be held at Ellsworth, Kan., sometime in April.

LEO V. TURGEON, Secretary.

### Stafford County Society

Society met in St. John at 2:30 p. m., March 8. The attendance was large and two very interesting papers were presented. Those present were: W. L. Butler, J. C. Butler, F. W. Tretbar, J. J. Tretbar, W. S. Crouch, T. W. Scott, Stafford; H. H. Miner, M. M. Hart, Macksville; J. C. Ulrey, L. E. Mock, J. T. Scott, St. John.

Dr. F. W. Tretbar read a paper on Acute Otitis Media and Dr. J. C. Butler read on Prostatic Hypertrophy. Both papers were unusually instructive and elicited general discussion.

There is growing interest in the meetings and increasing attendance.

The president, Dr. W. L. Butler, is an earnest, hardworking official who takes his work seriously. Under his leadership this promises to be the banner year of the society.

Fees are being maintained as well as a fine spirit of professional co-operation and friendship.

Dr. M. M. Hart, Macksville, will read a paper at the April meeting on Bacterins and Serums. For the spring meetings when reliable weather is assured essayists from other cities will be secured. The society has adopted as its motto "Professional Co-operation."

J. T. SCOTT, Secretary.

### Labette County Medical Society

The regular monthly meeting of the Labette County Medical Society was held in the Roller reception room March 23, 1922, at 8 p. m., Altamont, Kan.

Those present were: Landes, Wilson, Dobson, Stevenson, Hubbard, Scott, C. Brady, Morrow, Kackley, Henson, Rotter, Petty and Roller.

The meeting opened with a paper on "The Good of the Society," by Dr. J. P. Henson, of Mound Valley. There was discussion of Dr. Henson's paper by those present.

A clinical case of right internal strabismus following flu pneumonia complicated with right otitis media was shown by Dr. Roller, of Altamont, and discussed by Drs. Landes and Hubbard.

A paper on "Common Diseases of the Heart and their Treatment" was read by Dr. Stevenson, of Osage, and discussed. Dr. Hubbard, of Parsons, read a paper on "Cerebral Paralysis," which was discussed by those present.

The order of program for the year was discussed by the Society and it was decided to use home talent for a few meetings.

Dr. J. D. Pace's application was accepted by the Society and approved by the censors.

R. F. ROLLER, Secretary.

### Riley County Society

The officers for 1922 are as follows: Dr. C. F. Little, president; Dr. R. R. Cave, vice-president; Dr. J. D. Colt, Jr., secretary and treasurer. Drs. J. D. Colt, R. R. Cave and J. R. Mathews, board of censors.

We have added to our membership Dr. J. W. Evans, who has recently made Manhattan his residence.

Dr. C. F. Little, our president, was one of the organizers of the Riley County Medical Society some twenty years ago and we feel quite proud that he still takes such an active part in our society.

We feel that we have a wide-awake and enthusiastic organization. Our meetings are held on the second Monday of each month, at which time following dinner at the Gillett Hotel we have two papers, one by a member of the society and the other by some "head of department" at the State Agricultural Col-

lege, either chemistry, bacteriology, veterinary science or pathology.

J. D. COLT, JR., Secretary.

### An Appreciation

Burlington, Kansas, April 3, 1922.

Dear Editor: Through the Journal I want to thank the members of the medical profession at Lawrence for their timely financial aid in our flood disaster.

A telegram for \$105.00 was received from the profession at Lawrence and it will be divided among the M.D.'s who lost their offices and equipment in the flood.

This is surely a wonderful fraternity spirit shown by our brother practitioners in Lawrence, and we appreciate it. The offices of Drs. D. W. Manson and G. G. Kesner were totally wrecked and those of Drs. G. R. Norris and A. N. Gray were almost as bad—both being flooded with four and a half feet of water—causing a loss of most of their drugs, furniture, books, etc.

A. B. McCONNELL,

Secretary Coffey County Society.

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### DEATHS

Dr. H. M. Ochiltree, Haddam, Kansas, died at his home February 24, 1922, age 72 years, from complications following flu. He attended Monmouth College of Monmouth, Ill., for two years, Iowa State University, one year, Jefferson Medical College, Philadelphia, one year, and College of Physicians and Surgeons at Keokuk, Iowa, for two years from which he graduated in 1872. He served as U. S. Pension Examiner under Garfield and Arthur, was a registered pharmacist, a member of both State and County Medical Societies. For a number of years he took an active part and appeared on many of the State Medical Society programs. Had he lived until March 1st he would have celebrated the fiftieth anniversary of the beginning of his medical career.

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### BOOKS

A Text-Book of Physiology: for Medical Students and Physicians. By William H. Howell, Ph.D., M.D., Professor of Physiology, Johns Hopkins University, Baltimore. Eighth edition, thoroughly revised. Octavo of 1053 pages, 308 illustrations.



Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$6.50.

This book has been thoroughly revised but as the author suggests, "there has been no fundamental change, no epoch-making discovery, but there has been the usual constant shifting in points of view as our knowledge has widened and as the results of the advance in other branches of science have found their application in physiology." The author complains that the more natural relations of physiology to the maintenance of health have been neglected.

American Illustrated Medical Dictionary (Dorland). A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with new and elaborate tables. Eleventh Edition, revised and enlarged. Edited by W. A. Newman Dorland, M.D. Large octavo of 1229 pages with 338 illustrations, 141 in colors. Containing over 1500 new terms. Philadelphia and London: W. B. Saunders Company, 1921. Flexible leather, \$7.00 net; thumb index, 8.00 net.

The rapid coinage of new words for use in the several fields of medical science has made a new dictionary indispensable to those who attempt to keep pace with progress. The announcement of a new edition of Dorland's will be received with pleasure. In our opinion this is the most convenient and reliable dictionary published.

Clinical Tuberculosis, by Francis Marion Pottenger, M.D., with a chapter on laboratory methods by Joseph Elbert Pottenger, M.D., in two volumes. Second edition. Published by C. V. Mosby Company, St. Louis. Price \$15.00.

In the second edition the author has incorporated some late observations on pulmonary reflexes and their relation to disturbed function. Special attention has been given to the reactions of the patient toward the disease. An entirely new chapter has been added on "Influenza and Tuberculosis." It is needless to say that this is the most complete exposition of the subject that has ever been produced. Those interested in the treatment of tuberculosis should become familiar with the encyclopedic presentation of the subject.

The Physician Himself, by D. W. Cathell, M.D. The crowning edition, new and revised. Published by the author, D. W. Cathell, M.D., The Emerson Hotel, Baltimore, Maryland. Price, \$3.00.

The author gives some very wholesome advice to the beginning practitioner, he sounds

many heedful warnings to the more experienced practitioner, points the way to a more successful career to those whose personal attitude has retarded progress, insists upon more modern and dependable business methods, and suggests in many ways the important place to the world that the physician should hold. His crowning advice is: "Do all the good you can, in all the ways you can."

Diseases of the Skin and the Eruptive Fevers. By Jay Frank Schamberg, M.D., Professor of Dermatology and Syphilis, Graduate School of Medicine, University of Pennsylvania. Fourth edition, thoroughly revised. Octavo of 626 pages, 265 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$5.00 net.

The fourth edition of this book has been considerably revised. Some additions have been made and some chapters entirely rewritten. The treatment of syphilis has been rewritten in order to bring it up to present-day practice. Some new chapters on the rarer dermatoses have been added.

Infant Feeding. By Clifford G. Grulee, M.D., L.L.D., Associate Professor and Acting Head Department of Pediatrics at Rush Medical College. Fourth edition, thoroughly revised. Octavo of 397 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$4.50 net.

As in many other lines of endeavor, the writing of books was somewhat retarded during the war and much of our recorded knowledge seems to now require revision. The author has presented a very scientific discussion of infant feeding and the final revision has brought his work up to the present-day thought and practice.

Psychoanalysis: Its Theories and Practical Application. By A. A. Brill, Ph. B. M.D., Lecturer on Psychoanalysis and Abnormal Psychology, New York University. Third Edition, thoroughly revised. Octavo of 468 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$5.00 net.

Psychoanalysis has gained some new adherents among the members of the medical profession and will doubtless gain more as the subject is better understood. The author has added some new material in an endeavor to remove some of the misunderstandings which have led to confusion. A new chapter on paraphrenia has also been added.

Abdominal Pain, by Dr. Robert Ortner, University of Vienna, translated by William A. Brams,

M.D. and Alfred P. Luger, M.D. Published by Rebman Company, New York.

In his introduction the author refers to the diagnostic value of pain, although, fortunately, we are seldom called upon to make a diagnosis on the consideration of pain alone. He considers it justifiable to consider the pain as a starting point in the differential diagnosis. One will hardly realize how large this subject is until he has read the book. The possible causes of abdominal pain are very numerous and it requires a considerable amount of space to cover even a few of them. The book will be a revelation to those who have given little thought to the varieties and locations of pain.

Therapeutics and Preventive Medicine, Volume VI, Practical Medicine Series, edited by Bernard Fantus, M.D. and Wm. A. Evans, M.D. Published by the Year Book Publishers, 304 South Dearborn St., Chicago. Price \$1.75.

This is one of the most important volumes of the series as well as one of the most practical interest to the general practitioner, since it contains all that has been added to our information on these subjects during the year immediately preceding its publication.

Papers from the Mayo Foundation for Medical Education and Research and the Graduate School of Medicine of the University of Minnesota, covering the period of 1915-1920. Octavo volume of 695 pages with 203 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

This book is made up principally of theses and extracts from theses submitted to the faculty in pursuance of the requirements for certain degrees. These papers are therefore the reports on the various lines of research that have been and are being conducted at the school.

The Medical Clinics of North America (issued serially, one number every other month), Volume V, Number IV, January, 1922. By New York Internists. Octavo of 214 pages, with 38 illustrations. Per clinic year (July 1921 to May 1922). Paper, \$12.00 net; cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The January number of the clinics is filled with very practical clinical reports. The report by Longcope on epidemic jaundice includes two very interesting case histories. Brooks has a very practical paper in the treatment of pneumonia. Blumgarten discusses

endocrine factors in functional diseases and all will find much information in this article. Kantor presents five clinical types of appendicitis with illustrations. Mosenthal has an article on the treatment of high blood pressure that will be found interesting and instructive.

The Mechanics of the Digestive Tract, by Walter C. Alvarez, M.D., University of California Medical School. Published by Paul B. Hoeber, New York. Price \$3.50.

Perhaps the clearest conception of the scope of this book may be had from the headings of its various chapters: The Autonomy of the Digestive Tract; The Myogenic Nature of the Rhythmic Contractions and the Function of Auerbach's Plexus; The Smooth Muscle of the Gastrointestinal Tract; The Different Types of Peristaltic Activity; Gradients; The Underlying Basis of the Rhythmic Gradient; Other Related Gradients; Graded Differences in the Stomach Wall; Practical Applications of the Gradient Idea; Reverse Peristalsis and its Symptoms; Objections and Difficulties; Technical Methods and Apparatus; Bibliography, Index.

Diseases of the Eye. A Handbook of Ophthalmic Practice for Students and Practitioners. By George E. deSchweinitz, M.D., LL.D. Professor of Ophthalmology in the University of Pennsylvania. Ninth edition, reset. Octavo of 532 pages with 415 text-illustrations and 7 colored plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

This work has been revised and reset and includes references to all of the improvements in therapeutic measures and surgical procedures that have been made during the past four years. It is in every sense a complete text on diseases of the eye. It is too well known to require any other comment than that a new edition has been revised.

An Essay on the Physiology of Mind. By Francis X. Dercum, M.D., Ph.D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia. 12mo. of 150 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$1.75 net.

This is an interesting subject to both physician and layman, but somewhat too profound for the majority of us. The author says that he has endeavored to present the basic facts of those reactions of the organism



to the environment which under given conditions manifest the qualities which we speak of as "mind."

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### Opportunities for Service in Venereal Disease Clinics

Many applications for assistants in venereal disease clinics have been received by the Associated Out-Patient Clinics. These positions are both for men and women, graduates and students. In most instances physicians with no special training in venereal disease will be considered. Any physician who desires an opportunity to learn this specialty, should communicate with Dr. Alec N. Thomson, 15 West 43rd Street, New York City.

The Section on Venereal Diseases of the Associated Out-Patient Clinics, of which Dr. Thomson is Secretary, has offered to act as a clearing house for information regarding opportunities for dispensary assistants in the venereal clinics in New York City.

The above applications for assistants came in reply to a letter and questionnaire recently sent to the directors of the various venereal disease clinics, inviting them to state their needs for assistants and to specify not only the qualifications desired, but the clinical and professional opportunities offered.

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### Stricture of the Urethra in Women

Stricture of the urethra in women is a condition which is very often overlooked, although it may be responsible for marked functional and organic disorders in the genito-urinary tract of this sex. Herman of London, following the examination of 55 women without urinary symptoms, concluded that the normal size of the female urethra is F 29, a little less than 10 millimeters. Van de Warker expressed the opinion that a urethra from F 23 to F 28 should be considered normal. Examination of 114 patients at the Stanford Women's Clinic disclosed the fact that only 18 or about 16 per cent had never suffered from symptoms referable to the urinary tract. Following urethral calibration in these 18 cases, the author found the average size of their urethra to be F 26 or a little less than 9 millimeters. As to symptoms, frequent urination is the most common. It occurs in

over 85 per cent of the author's clinic and private cases. Subjective symptomatology was not taken into consideration in the patients confined in the detention ward of the San Francisco Hospital, as many of these deny disability, hoping to be released as soon as possible. Next to this symptom, pain referred to the urethral or bladder regions is the most prominent symptom. This symptom occurs in 64 per cent of the cases. Burning or smarting are present in 26 per cent, urgency in five per cent, and difficulty, constant desire to urinate, partial incontinence, dribbling and retention of urine, were each present in two and a half per cent of the patients. Residual urine is seldom found except in the presence of very tight strictures. The diagnosis is best made by means of the olive-tipped bougie. A urethratome or sound is much less reliable, as stricture usually yields to slight pressure, and consequently higher readings result from use of the latter instruments. The majority of urethral strictures should be treated by means of gradual dilatation, absorption of the constricting exudate being best promoted by this procedure.

Dr. Steven's conclusions are as follows:

Stricture of the female urethra is relatively common, and consequently calibration of this organ should be part of the urological examination of every woman and child complaining of symptoms referable to the genito-urinary tract.

Strictures of the female urethra respond readily to proper treatment, and their early detection will prevent pathological lesions of the upper urinary tract secondary to this condition—William E. Stevens, California State Journal of Medicine, February, 1922.

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### Another Remonstrance Against Mercury Inhalation

During the last few years the attention of the medical profession has been directed by clever propagandists to the treatment of syphilis by procedures which involve the volatilization of mercury-containing mixtures by heat and the inhalation of the resulting volatile products. There is nothing novel in the principles concerned. Inhalations as well as fumigations of mercury have been tested at

various times and the procedures have been abandoned because of the uncertain dosage. The Council on Pharmacy and Chemistry has refused to endorse preparations proposed for the treatment of syphilis which depends essentially on the administration of mercury by inhalation (Spiroicide Not Admitted to N. N. R.). In this decision it is sustained by a reinvestigation of the inhalation treatment of syphilis carried out by Cole, Gerickes and Sollmann. The investigators point out that the assumption that mercury is more properly absorbed by the lungs was based on physical misconceptions. In fact, the mercury is condensed on the mucous membranes of the mouth, pharynx and respiratory tract. That in the mouth and pharynx is, for the most part, swallowed; and the absorption then takes place by the gradual conversion of the mercury into soluble compounds. In other words, the administration of mercury compounds by inhalation has no advantage over oral administration. It has the serious disadvantage of indefinite dosage (Jour. A. M. A., March 4, 1922, p. 654).

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### **The Future Independence and Progress of American Medicine in the Age of Chemistry**

The recent war brought about a realization of how dependent we had been on Germany for our most valuable drugs. However, before the war was over, American manufacturers were making adequate supplies of urgently needed drugs. In their work on war gasses chemists had an example of what could be accomplished in an almost incredibly short time, when facilities for research were provided on a large scale and under conditions allowing of the fullest co-operation of chemists, physicists and physicians. With the close of the war, chemists began to consider to what extent such facilities might bring about American independence in drugs. A committee appointed by the American Chemical Society has now issued a report which elucidates the subject. The report makes it clear that pharmacologic research in German universities and in privately endowed institutes are far ahead of those in the United States.

Our schools of medicine and hygiene, the report continues, are largely ignoring the services which pharmacology, in close co-operation with chemists and clinicians, can render to hygiene and preventive medicine. About twenty years ago, Congress established the Hygienic Laboratory of the U. S. Public Health Service; the plan of its organization was unsurpassed by that of any laboratory in the world; but since then Congress has failed to provide for any considerable growth of this laboratory. Enlarged and with adequate support, this laboratory could give the United States the leading place in the world in this great scientific and humanitarian endeavor toward the discovery of new drugs. If better government support of the Hygienic Laboratory cannot be secured, then a privately endowed research institute must be the goal of those who realize the vast benefits which will accrue from the proper type of research in drug therapy (Jour. A. M. A., March 18, 1922, p. 806).

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### **Butyn, a new Synthetic Local Anesthetic: Report Concerning Clinical Use**

A special report of the Committee on Local Anesthesia of the Section on Ophthalmology of the A. M. A. on butyn is made by Albert E. Bulson, Jr., Fort Wayne, Ind. (Journal A. M. A., Feb. 4, 1922). The results of the clinical and experimental use of butyn seem to justify the committee in arriving at the following conclusions: (1) It is more powerful than cocain, a smaller quantity being required. (2) It acts more rapidly than cocain. (3) Its action is more prolonged than that of cocain. (4) According to our experience to date, butyn in the quantity required is less toxic than cocain. (5) It produces no drying effect on tissues. (6) It produces no change in the size of the pupil. (7) It has no ischemic effect and therefore causes no shrinking of tissues. (8) It can be boiled without impairing its anesthetic efficiency.

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### **Heart Disease in Industry**

Reviewing the records of 650 cases examined for the Massachusetts Industrial Acci-



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We also make Sterile Surgical Catgut Ligatures, plain and chromic, boilable, and Iodized Ligatures, nonboilable. The Armour ligatures are made from Lambs' gut, selected especially for surgical purposes and sterilized at opportune stages in such manner as to preclude the possibility of contamination in the finished strings.

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## THE JOURNAL ADVERTISERS

dent Board as the impartial physician appointed under the act, Cadis Phipps, Boston (Journal A. M. A., Feb. 25, 1922), found that in 231 of them either there was an organic heart lesion or else there were symptoms directly referable to some functional disturbance, such as a marked arrhythmia with premature contractions. Trauma is the chief factor in industry to affect the heart, occurring as it does in forty-seven of the 231 cases. Lead, occurring in twenty-five cases of different types, and other metallic poisons in nine cases suggest their probable etiology and also more energetic methods of prophylaxis. Fright, occurring in ten cases, is undoubtedly an etiologic factor in producing the arrhythmias. Caisson work may easily be a cardiac menace, and the customary examination of each workman before entrance into the lock should not be restricted to ear-drums and the upper respiratory passages, but should include a careful examination of the heart. Phipps states that comparatively little attention is devoted to determining the functional capacity of a heart, which is the real indication of the degree of incapacity. All these examinations should, as far as possible, include a determination of the effect of exercise on the heart.

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Intracardiac injections of epinephrine is regarded as a most important aid to efforts at resuscitation. In cases where there had been

respiratory standstill for five minutes resuscitation followed the intracardiac injections. The needle is inserted into the fourth or fifth intercostal space to the left of the sternum. A dose of 1 c.c. of the 1:1000 solution is the maximum dose.

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# THE JOURNAL

*of The*

## Kansas Medical Society

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### President's Address

C. S. KENNEY, M.D., Norton.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

The House of Delegates at the last annual meeting of the Kansas Medical Society, held at Wichita in April, 1921, assumed the responsibility of electing me President; and since this is the first opportunity I have had to express, generally, to the profession my deep appreciation of this honor, I feel constrained to say further that I was not unmindful of the responsibility resting upon me to act as a sponsor for this great Kansas fraternity.

I entered the office of President feeling that the Kansas Medical Society was a live down-to-date organization and I had no idea of suggesting any changes of the general plans of the Society. The past officers have, under very trying circumstances, accomplished many things worth while since its organization, and I feel we should appreciate the efforts of the men who have given so generously of their time and energy for our benefit. Their work has been well done and they are entitled to their reward.

Having served for years as a county society secretary and a member of the Council, I felt the new President would be expected to be active and aggressive in the affairs of the Society and that, while it was an honor to be the President, yet I fully understood that his duties were more than to preside at the annual meeting, sign a few warrants, and carry his name at the head of the roster of the officers of the organization. I believed the President was the servant of the fraternity and that he should not only be called upon by, but should also seek the counsel of the various members of the profession, with a view of making the organization better and of greater service to the physicians and the public generally. After visiting a number

of local societies and conversing with the members, I was convinced that action was expected if not demanded. With this understanding, the standing and special committees were not only appointed but urged to function as such; to really make investigations and to report back to the Council and the House of Delegates, the results of these investigations and to make such recommendations as were considered for the best interest of the Society. In other words, the idea was to make the Kansas Medical Society a more aggressive organization—one that could and would go over the top with an objective. The real object of the State Society is to make the profession better, happier and wiser. It is a balance wheel for the physicians and if it stands for the best in its members it will be a very potent factor in making the people better, wiser and happier.

The officers and committees have worked as a unit with this object in view. An effort has been made to iron out differences among the members in one or two of the component societies. The members of the several committees have met and discussed the problems concerning the profession and the public. They have been very loyal to their trust and the reports will be interesting, instructive and illuminating. The executive committee was appointed and was called upon to meet to appoint a treasurer, due to the death of our good friend and efficient official, Dr. L. H. Munn.

Some recommendations will be submitted regarding some changes to be made in the by-laws. This appears necessary in order to clear up some vague and conflicting clauses in that document.

Having faith that the Society could be of service to non-members and believing it should have the support of all eligible physicians, a drive was made to obtain a 100 per cent membership. The slogan was "On to To-

peka 2000 Strong in May, 1922." This number has not been attained; but by a united effort on the part of the councillors, county secretaries, state society officers, and individual members, a larger number are now on the roster than ever before at this time of the year.

This in brief tells some of the activities of your Society during the past year. There are, however, many other things that can be done and I see a great opportunity for real service in the future. Nothing can be attained, however, without effort and the more harmoniously the Society functions, the more work with but little effort can be accomplished. I am indeed enthusiastic over this most promising future.

The medical profession throughout this country has for years insisted that the standard of medical education be raised, and that better qualified men enter the field; that the practice of medicine was more than a money-making proposition, that it stood for the very best in the community and in order to carry out the high standard of efficiency it was necessary that we raise the educational and moral standards for all those practicing the healing art. In so doing, I fear that at times we have rather gotten away from the public and I sometimes feel that there is a sort of passing of the good old family physician, that we have arrived at the stage where the profession is divided into many specialties, and the specialties are again divided and subdivided, to the end that the public has not kept pace with the times and is more or less bewildered. The members of the profession have been reticent in taking the public into their confidence with the result the laity look on them as belonging to a sort of closed corporation and many have turned to the poorly equipped and scientifically unprepared cults—drugless healers, Christian scientists, chiropractors, osteopaths, etc. This should not be the case and we should take the public into our confidence and attain the standing we deserve and by all the rules of the game, should have.

The medical profession, being so earnest in its endeavors to determine the complicated

manner in which the human body is afflicted, appears to have drifted away from the people to some extent; and the various cults with their more simple and unscientific explanation of the causes of the ills to which the human body is heir have won over many well-meaning but misinformed people. This dilemma, if such it be, confronts us; and it is our problem to meet it courageously.

The best treatment is prevention but the public does not appreciate that fact. We physicians are certain it is better to prevent typhus fever, smallpox, diphtheria, influenza, etc., but the public has not been trained that this is the proper procedure. Their education in preventive medicine has been neglected. The chiropractor says the cause of headache, backache, etc., is due to an impinged nerve interfering with the vital flow—whatever that is—along the nerves, easily removed; and that blindness is due to an impinged nerve at the third cervical vertebra. He does not explain that the optic nerve could not be impinged by one of the cervical vertebrae. The physicians laugh at such folly; but the general rank and file of the people, knowing but little or nothing of anatomy, to use a common expression, "fall" for this simple explanation of the cause of these symptoms.

These cults are here and can legally follow their calling and it is not expected that any legislation against them will be forthcoming; but no longer can we keep our light under a bushel—we have a duty to perform.

True, it is difficult for a lay mind to understand that locomotor ataxia, paresis or apoplexy is often due to syphilis contracted twenty-five years before and that at the beginning it was manifest only as a small chancre. Of course it is easier to say it was due to mortal mind, impinged nerve, or a subluxed vertebra; but we know this is an error in reasoning, because it has been conclusively proven time and again that the laws governing the causes of diseases are as well founded and defined as any of the other well known laws of nature. Many people are not familiar with these facts, consequently we are greatly handicapped in putting this information across.



We believe in the code of ethics of the American Medical Association; we believe in the Hippocratic oath; and far be it from us to intimate that the standard of ethics should be violated in any way, shape, manner or form; but there is nothing in either the code or oath that should deter or prevent any physician from being absolutely frank and telling the truth about contagious diseases. We should say to the people, typhoid fever is the result of drinking the dilute sewage from another case of typhoid, that it is not due to rotten cabbage, green scum on a pond, or an impinged nerve; that syphilis is due to an infection from the spirochaeta and that it is not necessary that it be acquired through immoral or social acts; that smallpox, influenza, pneumonia and tuberculosis are due to specific agencies and are spread from the sick to the well. Bacteria growing in the human body produce symptoms that we recognize as disease. In the growth and development of these germs they are merely carrying out the first two fundamental laws of the universe; 1st. to live; 2nd. to reproduce.

To combat the delusions that are being fostered upon the unsuspecting public by commercialized forms of pseudomedicine, it is necessary that correct information appertaining to the fundamentals of nosology be propagated among that public.

Preventive medicine, for the benefit of the future citizen, should be taught in the public schools, and I, as a father with three children in school, believe sex hygiene, properly handled, should also be taught.

Approximately 90 per cent will recover from the first attack of all diseases but in many instances, especially if not properly treated, serious complications result. To illustrate—nephritis and cholecystitis often follow acute diseases and the physician's services should not necessarily cease when the temperature and pulse become normal. These well known facts should be generally known by the community.

The public must also be made to understand that diseases are entities. The causes generally are well known, hence their prevention is within the grasp of the people.

Physicians intend to practice by the code of ethics and have felt that the people would come to them. The result is the doctor is seldom consulted regarding prevention of diseases. They may be consulted after the case of syphilis has thoroughly developed, a pneumonia has prostrated its victim or tuberculosis well advanced. He then is dealing with a serious condition.

The physicians in Kansas are trained men and in the very best position to instruct the public. They cannot accept the premises that mortal mind, impinged nerves and subluxed joints cause infectious diseases. We appreciate the fact that it is difficult for the laity to realize that diseases are spread from the sick to the well and that the cause is usually a well known micro-organism, which may be transmitted direct or through some other agency. Our problem then must be to educate. To do that we must get our people's confidence. The barriers between laymen and doctors must be taken down.

Evidently the public needs this instruction. Ask any lay audience how many believe children's diseases are necessary and you will be astonished at the number voting "yes." Many still believe in signs, drafts, divine wrath, demons, etc., as causes of disease. Many also shrink from bad odors, green scum on stagnant pools, etc.

The public should be instructed along the lines of prevention and should be familiar with the manner in which diseases are spread.

If this be done, we will do more towards raising the standards of treating the ill than we are at this time. We can do nothing by fighting, we can do but little by legislating; we can accomplish nothing if we do not educate. My plea would be educate—educate—educate. We should show by our actions that we are not only doctors that attempt to cure but are really altruistic and desire to be of real service to our fellow man, by teaching how to prevent diseases. We should take the people into our confidence and teach them what we know to be correct. If we be frank in these discussions much of the ignorance regarding disease prevention will be overcome.

We hear it said that the medical trust is

trying to foster upon the public a state medicine—of course this is absurd. The profession is, however, trying to raise the standards for those who attempt to diagnose and treat diseases. This is done to protect the public from being imposed upon by untrained practitioners. The public should acquaint themselves with the well known fact that through the efforts of the medical profession typhoid fever, lock-jaw, malaria, hydrophobia and yellow fever are preventable diseases; that tuberculosis, diphtheria and syphilis are both preventable and curable.

The public knows but little of the work of Jenner, Lister, VonBehling, Lozeor, Carroll, Reed, Koch and countless others. Our people are not familiar with these men who have devoted their lives to their fellow men. I feel it is our opportunity at least, if not our duty, to place this information before the people. I believe they are ready for such information.

As physicians have only been called in the past to treat people when sick, our work has been principally to cure diseases. I feel it would be far better to devote our time to educating the people to the necessity of prevention. The public are not familiar with the fact that a large per cent of the locomotor ataxia, early apoplexy, the parietic dementia and feeble-mindedness can be traced to an untreated or insufficiently treated case of syphilis. If this were thoroughly understood by the public, our institutions would not be so full of this class of cases. If our people fully realized that 80 per cent of the cases of pyosalpinx, 60 per cent of the abdominal operations, 95 per cent of the sterility, 25 per cent of the blindness and a large per cent of the so-called rheumatism with its deformities, were due to gonorrhea, they would not treat those conditions so lightly. It is sad to relate that a large per cent of the so-called venereal disease in women is innocently contracted, and yet we are preaching from the housetops that syphilis and gonorrhea are immoral and social diseases. As a matter of fact a large number have nothing to do with immorality or sociability.

The public should be made to understand

that many of the so-called rheumatisms, organic heart lesions and nephritis are the results of previous infections and are in a large measure preventable.

They should also be made to understand, notwithstanding much opposition, that since the micro-organism theory as to the cause of diseases has been established the average age of man has been increased from thirty-three to forty-six years in the past generation.

I feel constrained to emphasize the fact that the responsibility rests with the physicians, who are trained, who understand, and who alone can give the proper instruction regarding the cause, transmission and cure of diseases with the attendant complications. It is a question, not of passing laws to prevent the incompetent and quacks from plying their trades upon the pain-racked victims, but of enlightening the people. When that is done, they will get behind any proposition that will make it imperative that anyone who assumes the responsibility of examining, diagnosing, directing and caring for the sick, be absolutely competent, and that he be educated and trained in the art. The members of the medical profession are in the best position to instruct the people. They go into the family as the medical adviser. No one else is received into the bosom of the family with the same confidence as the physician. This places him in better position to talk frankly and freely regarding diseases. He should take an interest in the schools, he should speak wherever it is possible to the students regarding personal hygiene and the necessity of building up a strong healthy body in order to produce good offspring. This opportunity is presented to the physician as it is to no other man, and I feel that there should be twenty-six hundred Kansas physicians ready and willing to give wholesome instruction to a public who need it badly.

In my visits to the various societies and in several personal conferences with the best minds in the profession I am convinced that the rank and file are anxious to be of service to the people. The only question is, are the dear people ready? I believe they are.

The various cults fill the papers, magazines,



etc., with propaganda that appeals to the prejudice and passion of the people rather than their sense of judgment and fair play. We have been sitting meekly by permitting the procession to pass without saying anything. This should not continue. The people should not be further misled. It is our duty to see that this imposition ceases. We should not shirk our responsibility. Our cause is just and we should meet the issue as it appears.

Our profession has never faltered whenever called upon to serve our people. When war, pestilence or famine stalked abroad the physicians have always been ready to meet the foe. It was conclusively proven in the world's war that the position taken by the profession of medicine regarding preventive medicine could not be successfully attacked. Lockjaw, typhoid fever, smallpox, etc., were almost unknown in the army. Surgical infections were rare. So were those due to infected food. If a preventive for pneumonia, influenza and colds have been discovered the army would have been practically free from disease.

The Kansas physicians should work with the various national, state and local boards of health, the clubs, civic organizations, schools, etc., to help spread the gospel of disease prevention. We should offer our services wherever and whenever needed.

I feel we have our real opportunity and should embrace it. I see a great future for the profession in Kansas and the nation. It is an honor to belong to such a profession and it has been a pleasure to serve the Kansas fraternity.

I feel that each local society should appoint a committee on public health and education to work in conjunction with the state committee of like nature, with a view of spreading the proper information to the general public.

At the end of this session I close my year as President of the Society and place the mantle upon other shoulders and take my place in the ranks; and as I do so, there appear before me many pleasant memories of the past year; and I prophesy for the fraternity—peace and prosperity in the years to come.

## Whooping Cough

R. L. VON TREBRA, M.D., Chetopa.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The first distinct and comprehensive account we have of the disease was furnished by Maczray in the year 1414 in his Chronological History of France. The first epidemic was described by DeBallou in the sixteenth century. And since the seventeenth century it has been common in all latitudes.

It was known in early times under such names as *tussis infantum*, *chink cough* and *King's cough*.

Whooping cough derives its name from the peculiar characteristic cough, a series of short sharp explosive, followed by a prolonged inspiratory cough or whoop. It is both epidemic and endemic in character attacking in most part children, none seeming to be immune.

The tendency has been to regard whooping cough as a rather mild and unimportant disease but statistics show it ranks in fatalities ahead of scarlet fever.

Attention was first called to the infectious character of this disease in 1887 but the real bacillus was not found until 1906 when Bordet and Gengou isolated and proved their finding.

Mallory and Homer, *Journal of Medical Research*, in 1912 demonstrated that the primary essential lesion of pertussis consists in the presence of masses of minute bacilli between the cilia of the epithelial cell lining the trachea and bronchi. Their action being chiefly mechanical interfering with the normal action of the cilia by sticking them together and thereby causing constant irritation. They are Gram-negative nonmotil and vary in shape from round to oval rods.

This organism can only be differentiated from the influenza bacillus of Pfeiffer by size and culture. The influenza bacillus cannot be made to grow on a medium that does not contain hemoglobin.

While the action of the pertussis organism is chiefly mechanical, it evidently secretes a certain amount of toxin. This is shown in three ways. There is a slight inflammatory reaction. Leukocytes in small numbers migrate

through the walls of the trachea. The blood of whooping cough patients always shows a certain degree of lymphocytosis. Ultimately the blood serum develops an antibody which renders it possible to obtain a complement fixation test.

Whooping cough is transmitted by direct contact, from extreme youth to old age, beginning with the catarrhal stage and lasting till the whoop ceases. The period of incubation may be only three days, but as a rule is seven to fourteen days.

Statistics show that children of the poorer class contract whooping cough from their companions while quite young due to crowded mode of living, leaving only 10 per cent to develop it during school age. While the children of the well-to-do escape younger, thirty-seven per cent acquiring it in school.

As whooping cough grows less and less dangerous for children after five years this testifies to the grave danger of whooping cough for the children of the masses. The mortality under one year is from twenty-five per cent to fifty per cent from one to five years fifty-five per cent, and above five years one and eight-tenths per cent. I do not think these statistics would hold good in our locality due to the better living conditions and care the children receive.

Of the unprotected children ninety-five and five-tenths per cent are susceptible. The U. S. census reports fatalities are twice as great among the negro race. And in Jewish families it is said to be three and one-half times less than others due to the protection from infections of the infant.

We have two stages, the catarrhal and spasmodic. The catarrhal stage is ushered in by slight cough little or no fever and very little expectoration, the latter being of a glistening character; cough usually worse at night. Frequently as associated catarrh of the intestinal tract and shreds of mucus found in the stools. The appetite is poor, child is nervous and restless at night. The first stage lasts seven to ten days. The second stage may manifest itself the second or third day. The cough then assumes its typical convulsive character ending in a long drawnout audible inspiration in which the breath is lost, face flushed

or livid and eyes protruded. Many paroxysms end in vomiting of a glary glutinous mucus from the throat, together with stomach contents, with frequent nose bleed and hemorrhages from the mucous membrane. This stage lasts from four to ten weeks. Holt says sixty days, Roach ninety days, Ruhard ninety to one hundred eighty days.

The principal complications are respiratory, digestive and hemorrhages. In the average case the diagnosis is not hard to make as the family often have made it before you see the patient. But if it is in the early stage it is very difficult. As shown from the microscope the bacilli in the first stage are scarce and if found can only be differentiated from influenza bacilli by culture. The complement deviation test does not show positive till the end of the second week or till the antigens have formed in the blood. These two tests are not practical for the general practitioner as they require laboratory equipment. So we must rely on the symptoms of the catarrhal stage for our diagnosis.

Prognosis must be guarded in the very young—say under one year—the weak and delicate, and the time of year care and surroundings must be taken into account; remembering the heavy mortality under one year.

Treatment, the physician and the public must be convinced of the seriousness of whooping cough in infants and younger children and the importance of protecting them from it. This disease should be reported and placarded in Kansas. Do you all report your cases? Would you be more careful if you knew that 10,000 children lose their lives annually from this disease in this country? What would happen if we had 10,000 deaths from plague in America? Every country in the world would quarantine against us and yet we go on with this disease without even reporting one-fourth of the cases.

In Kansas in 1918 we had 217 deaths reported from whooping cough, 130 from diphtheria and 72 from scarlet fever. In 1919 whooping cough 57, diphtheria 191, scarlet fever 49. I quote these figures to show we must look on whooping cough with its complications as one of the diseases most danger-



ous to childhood and use all precautions to prevent it. As the vitality of the Bordet bacillus outside the body is slight, formal disinfection is not needed. The hygiene of the patient should be looked after. Plenty of fresh air will reduce the number and severity of the paroxysms. This can easily be done in summer but must be handled with care in winter or a change to a warm dry climate may be beneficial. If there is fever the patient should remain in bed. Good food should have considerable care and thought, and should be adapted to the individual patient. Some will take the dry foods, as the starches, bread and cereals and others milk and eggs. This must be worked out in each case. As a great deal of food is lost at the end of the paroxysm this should be supplied as soon after the paroxysm as possible. The various inhalations often give some relief. I have used antipyrine and sodium bromide in cough mixtures and have had some relief, but have found it necessary to change off at times to codeine and quinine or the interrupted medication. Of late years my best results have been in the use of vaccines with a few drugs. I think whooping cough could almost be stamped out if we could impress our patients with the value of the prophylactic use of vaccines.

As to the length of time of immunity I cannot say but judging from the results obtained in typhoid and meningococcus prophylaxis there is reason to believe that an immunity from prophylactic inoculation of pertussis vaccine will also continue long enough to be of substantial value. In New York State at the child welfare station free vaccination was available and 10,000 children were vaccinated. Up to April of the next year less than five per cent of those vaccinated came down with whooping cough. This was done with fresh vaccine provided by the state. All stock vaccines should be required by law to have date of manufacture stamped on them as well as expiration, because it is a rule of all vaccine therapy that its success is in direct proportion to the time of its administration. The earlier and fresher the vaccine can be given in any infection the better the results. To immunize a case I give

four doses, the first 500,000,000, on the second or third day 1,000,000,000, then in four days 2,000,000,000, and then in four days I give the last dose, 2,500,000,000. This is of the straight Bordet bacillus and I have not had one of these children develop whooping cough and they were all in families where the other children had the disease.

In cases that already have whooping cough if I can begin my treatment in the early catarrhal stage I give the same dose only I use the mixed vaccine which contains the Bordet bacilli, micrococcus catarrhalis pneumococcus and streptococcus. In the further advanced cases the treatment must be pushed more vigorously. In this way I think I protect my patients from complications and feel I can safely say that they will run a much shorter course, less paroxysms of cough, scarcely any vomiting, no cyanosis, hemorrhage, or bowel trouble.

In conclusion the treatment can be summed up as follows: Vaccine therapy in whooping cough is rational and effective. Experience has proven the benefit of serum as prophylactic and as an active therapeutic agent. Usage minimizes loss of weight, reduces the duration of the disease, decreases the intensity of the illness, forestalls the possibility of complications and sequelae, is unattended by danger of anaphylaxis and limits the mortality.

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### Pulmonary Abscess and Its Surgical Treatment

ROBERT B. STEWART, M.D., Topeka.

A true pulmonary abscess is that condition in which a localized pyogenic process is confined within a cavity resulting from destroyed lung parenchyma. This abscess is outside the scope of the respiratory tree; the lung tissues around it may be altered almost to the point of gangrene.

A primary suppuration of the lung is extremely rare. The lung abscess develops secondarily, following some infection carried to the lung tissue either through inhalation through a bronchus, or by the blood stream; or the inflammation may be the result of a traumatism. Broncho and lobar pneumonia are the most fruitful sources of lung abscess;

a grippal or other attack may be the exciting cause.

Recently much attention has been given to the fact that a lung abscess may follow teeth extraction or a tonsillectomy. Bassini<sup>1</sup> seems to have been the first in 1913 to report a lung abscess following a tonsillectomy. Since then many cases of this kind have been reported and Bevan<sup>2</sup> has recently stated that about a dozen or more of lung and brain abscesses following a tonsillectomy were observed within three years at the Presbyterian Hospital, Chicago.

Whittemore<sup>3</sup> thinks that the aspiration of blood or infected matter following or during an operation on the nose, throat, or teeth is a very frequent cause of lung abscess. Lemon<sup>4</sup> says that about three-fifths of lung abscesses follow infective processes and about one-fifth follow operations on the nose, throat, etc. Clendening<sup>5</sup> thinks that motor driven anesthetic apparatus by creating a positive pressure in the pharynx may operate as a cause of lung abscess, owing to the facility of inspiration of septic material.

Infection reaching the lung by way of a bronchus, therefore, seems rather a more frequent cause of lung abscess than has been supposed. The pneumococcus has been generally considered as the active infecting agent, but Hartwell<sup>6</sup> thinks the pneumococcus not an important factor, but rather that the staphylococcus aureus should be impugned, and that this microbe is usually present even if the abscess has been preceded by a pneumonia. Hartwell found that in 770 consecutive cases of pneumococcal lobar pneumonia admitted to the Rockefeller Hospital, only two developed lung abscess and each of these showed other infecting organisms. Of 16 cases of lung abscess reported by Hedblom<sup>7</sup> as observed at the Mayo Clinic during 1919 the etiological factors were as follows:

Due to post operative pneumonia.....	4 cases
Following Teeth Extraction.....	3 cases
Following Tonsillectomy.....	2 cases
Following Grippe.....	1 case
Following Gastro-enterostomy.....	1 case
Following Trauma.....	1 case
Of questionable origin.....	4 cases

A lung abscess may be concomitant with

an empyema: the empyema developing from a perforation into the pleural cavity.

(a) It ought to be remarked that many cases of lung abscess rupture through the pleura and set up an empyema which completely masks the abscess and the case is diagnosed and treated on the basis of the empyema alone.

(b) As regards the frequency of lung abscess Hartwell<sup>6</sup> states that in 6,000 autopsies in the Bellevue Hospital, New York, 148 cases of lung abscess were found, 50 of which could have been detected clinically.

Abscess is more usually situated in the lower lobe of the right lung. In a series of cases reported by Lemon<sup>4</sup> the proportion was 15 times in upper lobe, 45 times in lower lobe, 8 times in middle lobe. Abscess occurs with preponderating frequency in males (nearly seven to one).

According to the degree and nature of the infection an abscess may be either acute, sub-acute or chronic.

The symptomatology is that due to a systemic infection with the special characteristics of cough and sputum in addition. In four of the 16 cases treated at the Mayo Clinic and reported by Hedblom, the sputum exceeded 8 oz. in 24 hours. This profuse expectoration is usually very foul, and the odor is characteristically fetid. In a sub-acute abscess, the patient's history will generally show a pneumonia or some other inflammatory process some months before. Fever is variable. In chronic abscess there is generally a mild afternoon fever with some anorexia and loss of weight.

The diagnosis of lung abscess is usually stated to be easy, but Whittemore<sup>3</sup>, Beck<sup>8</sup> and others do not consider it simple; it is often difficult, yet a definite diagnosis can be made in the majority of cases. Abscess must be differentiated from tuberculosis, pneumonias and from circumscribed interlobar empyema. If the sputum contains pus or elastic fibers, abscess must be thought of but both are frequently absent. Whittemore<sup>3</sup> thinks that the presence of large numbers of influenza bacilli almost certainly denotes bronchiectasis. The most reliable evidence of lung abscess from the surgi-



cal viewpoint is given by an x-ray examination. If the x-ray picture shows a definite cavity with a fluid level in it, in a patient with elevated temperature and a leukocytosis there is no question but that it is a lung abscess. The x-ray not only confirms the diagnosis, but fixes the locality of the abscess. Lynch and Stewart<sup>9</sup> have recently described a method of studying the cavities of lung abscesses by injections of bismuth sub-carbonate and sweet oil into the bronchi and lung under control of the bronchoscope.

Whittemore says that only from 6 to 10 per cent of lung abscesses recover spontaneously. An inspiration abscess may drain spontaneously through a bronchus, become obliterated and cicatrize. The mortality of unoperated lung abscesses is variously reported as ranging from 50 to 70 or 80 per cent.

During the past two years I have observed in my own practice eight cases of lung abscess; in all, the diagnosis was made by the physical examination of the chest and confirmed and definitely located by the x-ray. Notwithstanding the high death rate as given in the literature in unoperated cases, 5 of these cases recovered without operation, while the other 3 were operated upon with recovery. In all but one case the abscess was located in the lower lobe of the right lung; in the other—that of a 5-year-old child—the abscess was in the lower left lobe. One case followed tonsillectomy; two followed suppurative appendicitis; with post-operative pneumonia; two followed broncho pneumonia; one followed a frank lobar pneumonia; one followed laryngeal diphtheria in which intubation of the larynx had been performed, and one case occurred four months after an empyema drainage had closed, and the patient remained entirely without symptoms of chest trouble during the interval.

The only effective treatment of lung abscess is drainage; if permitted to evolve there is always the danger of septicemia or pyemia. Medical treatment is directed towards postural drainage and deodorization of the secretion from the abscess, and the upkeep of the patient's condition. When posture drainage is not productive of a free discharge of the pus,

with improvement in the condition of the patient, surgical treatment is immediately indicated. Even in acute cases Whittemore believes it is justifiable to postpone operation for a few days to see if the patient's condition shows any tendency to improve, but all cases of chronic abscess should be operated. Whittemore thinks that the use of the exploring needle to locate an abscess is unnecessary and dangerous; Bevan<sup>2</sup>, however, and others use it especially after a thoracotomy. Whittemore thinks that if a puncture is made where the pleura and lung are not adherent, there is danger of infecting the pleura and setting up an empyema; besides, there is the danger of pneumothorax or of puncturing an important vessel.

The surgical procedure usually followed is a thoracotomy with resection of one or more ribs, and drainage of the abscess. Collapse of the lung may be obtained by rib resection or by artificial pneumothorax. MacEwen<sup>10</sup> and Tuffier<sup>11</sup> were among the first to employ rib resection. In 1910 Forlalani<sup>12</sup> adopted the pneumothorax treatment of pulmonary tubercular cavities to the treatment of pyogenic lung abscess. Izar<sup>13</sup> Volhard and Tewksbury<sup>14</sup> especially have reported good results from this method, but it can only be applied where the lung is free to collapse and not fixed by adhesions. If a thoracotomy is done, the incision must be governed by the location of the abscess and be quite ample. Two or three ribs should be sub-periosteally resected. Further procedures will depend upon the presence or absence of adhesions. If the lung is free, its movements may sometimes be seen through the pleura.

Adhesion of the lung and costal pleura may be obtained either by suturing or by packing a gauze sponge against the pleura and leaving it there until adhesions are well established. The operation is thus carried out in two stages, the first stage ought to be devoted exclusively to locating the abscess. Where there is adhesion between the pleura and lung, which is the general rule, the pleura is more frequently thickened. An abscess is more frequently located towards the periphery than near the root of the lung and hence the indurated and thickened pleura will be more

usually found towards the periphery of the lung. Before opening the abscess the visceral pleura is made to adhere to the costal pleura. The technique for opening an abscess varies considerably. Some open with the cautery; others cut into the lung with the knife for about  $\frac{3}{4}$  of an inch and then explore with the finger. Pus will usually be demonstrated, but even if no pus is drawn, there is a rush of foul smelling air on withdrawing the finger and then a drain may safely be placed. Pus usually appears within 24 hours. Soft rubber drainage tubing is placed in the lung cavity. Drainage may have to be continued for a long time. An abscess may drain for six months or even for years. About one in every five cases shows no tendency to heal. Several procedures have been devised to shorten this drainage period. Bevan<sup>2</sup>, however, remarks that certainly in half the cases of lung abscess that he has operated, the patients have been in better condition with permanent external drainage than where an attempt has been made, either by injections of bismuth paste or by operative procedures directly applied, to cure the external fistula. He thinks that frequently it is unwise for the surgeon, in the interest of the patient, to try to obtain closure of a fistula. The condition may persist for years and the patient still remain in comparative comfort. Beck<sup>8</sup> has for several years obtained good results in these obstinate cases by sliding skin grafts cut in the vicinity, so as to line the abscess cavity. The skin is not sutured to the lung. The cavity closes up by degrees, not due to filling of granulation tissue, but rather to the expansion of the underlying lung, so that after some months the skin flaps, which were originally down deep in the cavity, are very much nearer the surface.

The post-operative complications that may arise are empyema and hemorrhage. Hemorrhage is frequent and is often fatal when due to erosion of a large vessel in the abscess wall; erosion of blood vessels may be caused by pressure of drainage tubes. Septic pneumonia or empyema may arise from leakage in the line of suture attaching the lung to the pleura when the pleural cavity is not sufficiently protected by adhesions. Gauze pack-

ing is a good safeguard against hemorrhage in the early days following operation.

Three of the 16 patients reported by Hedblom as operated in the Mayo Clinic died. Mortality 18.7 per cent; the remaining 13 were all improved. Whittemore reported 21 cases; three of these recovered without operation; one patient refused operation and died. Of the 17 operated patients, 1 died. Two of these cases were acute and 15 were chronic; the time of the original lung condition varying from 3 to 11 months before the patient entered hospital. Some authors have reported the operative mortality as high as 25 per cent.

A distressing complication is the case of neglected lung abscess associated with chronic empyema. In such neglected inveterate cases Beck states that good results may be obtained from injections of bismuth paste. He reports a series of 110 cases, 80 per cent of which were cured by bismuth injections alone. The paste is composed of 10 per cent bismuth subnitrate and 90 per cent vaseline. Lynch and Stewart<sup>9</sup> also thinks that bismuth injections have therapeutic value in lung abscess. Beck remarks, however, that the paste does not answer very well in very large cavities.

The method of removing the thickened membrane encasing the pleura and lung; i. e., decortication, does not appear to have been favored by American surgeons. Fowler<sup>15</sup> employed it successfully in a case of empyema as far back as 1893. Beckman<sup>17</sup> in 1913 found only 24 cases of decortication by American surgeons in the literature. The operation was done five times in the Mayo Clinic. Within recent years this method has been revised by Roux-Berger and Policard<sup>16</sup>; especially in connection with old pleural fistulous lesions resulting from war wounds. When the pleural cavity is completely disinfected, these authors make a very wide postero-lateral thoracotomy, the incision including the fistular orifice. The thickened membrane encasing the parietal and visceral pleura and the lung is peeled off easily by the exploring finger and the whole casing, including the fistular tract, is removed en bloc as a closed vessel, viz., a total pleurectomy. These authors say that the technique



is not difficult and that good results follow.

I wish to emphasize that the study of the literature brings out the fact that pneumonia is the most frequent cause of lung abscess. That when there is apparently a delayed resolution or a secondary rise of temperature after a crisis in pneumonia, an x-ray examination of the chest should be made to determine whether or not there is an accumulation of pus in the chest.

All cases of lung abscess which do not drain freely with the posture to facilitate the flow of pus or which do not show improvement in their general conditions, should be promptly operated upon that adequate drainage may be secured. The use of the exploratory needle is not only unnecessary, but is dangerous and should not be employed. The anesthetic of choice in these cases is novocaine and adrenalin locally, supplemented when necessary by nitrous-oxide-oxygen inhalations. The operation is best made in two stages; the first stage being devoted to determining the exact location of the abscess and preparing the pleural surfaces for the evacuation of the pus. After sufficient time has elapsed to establish protecting adhesions between the visceral and parietal pleura, the abscess is opened either with a cautery or by direct incision with a knife and drainage established.

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## Epidemic Encephalitis: A Summary of Present Knowledge

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"Encephalitis lethargica" was the title of an article published in the Vienna "Klinische Wochenschrift" by von Economo in 1917. It described an epidemic disease which has since been observed in all parts of the world and concerning which a vast quantity of data has been collected and published. I find that I have on my own book-shelves something like 1,000 bibliographic references to encephalitis all published within the past four years. With so many observers and so many cases, it is not strange that in spite of great additions to our knowledge of the disease (which is believed to have appeared in previous epidemics, notably in 1712 in Germany, and dated by some back to the time of Hippocrates) there is still some confusion in regard to its real nature.

The great number of articles which have appeared in the medical literature have stimulated an interest among physicians of which the disease is quite worthy, by nature if not in frequency of occurrence, but the man in general medicine cannot but be somewhat confused in his general conception of epidemic encephalitis. In the first place, his own experience with the disease is necessarily limited; secondly the neuropsychiatric nature of the disease is of itself a handicap to the physician without neuropsychiatric training or interest, and thirdly the literature has been so abundant and so disorganized for the gaining of a clear conception of the disease.

I propose to present a summary of the present accepted knowledge of Epidemic Encephalitis\*.

### INCIDENCE.

The medical literature would indicate that cases of encephalitis corresponding with our general conception of the disease have occurred all over the world. There has not been a careful study of geographic localiza-

tion, and this should be done, because I have personally secured some evidence to prove that it is much less abundant in Kansas than in the northern states, e. g., Minnesota, and it is apparently very much more abundant in certain centers than elsewhere.

The age extremes are four weeks, and eighty-four years. About 50 percent of cases occur in the 20s and 30s.

\*—In assaying this task I have been greatly aided by the report of the investigation into Acute Epidemic Encephalitis made by The Association for Research in Nervous and Mental Diseases, convening in New York December 28, and 29, 1920. As a member of this organization, I recently received a copy of this report as there presented, and I notice that it has since been put on the open market. I strongly recommend it.

The male sex is more frequently and more severely attacked, the ratio being about 3:2.

The mortality is uncertain because of the many mild unrecognized cases. Of recognized cases from 10 to 20 per cent die.

#### ETIOLOGY.

The incidence in epidemics and in particular loci both suggest that the disease is infectious. While there is yet no indisputable proof that this is so, much laboratory evidence favoring it has been adduced. General scientific favor is now extended toward the theory of filterable virus, resident chiefly in the nasopharynx, and concerned in some way with the mild coryza which is said to exist in nearly all cases although rarely noted, which is capable of stimulating some immunity, which is innocuous to some and hence permits transmission by carriers, which produces by various types of injection into animals syndromes similar to those familiar in human encephalitis, and which in form is a minute filterable Gram-positive coccus similar to that described by Flexner and Noguchi in acute anterior poliomyelitis. First credit for this work goes to Loewe and Straus of New York, whose work has been confirmed by Thalhimer of Milwaukee and numerous Europeans, particularly Levaditi and Harvier, McIntosh and Turnbull, and Ottolenghi, D'Antona and Toniatti.

#### TRANSMISSION.

Methods of transmission are as yet entirely unknown. They can be conjectured from the peculiarities of the virus above mentioned.

#### PATHOLOGY.

Detailed pathological studies of brain and

spinal cord as well as of all the other organs of the body have been made in a considerable number of cases. The characteristic lesions in the nervous system are those of an acute inflammation of a non-suppurative type. This means perivascular infiltration, diffuse cellular infiltration of the nervous tissue, minute hemorrhages, degenerated nerve cells. Other organs of the body showed the usual evidences of a systemic infection without suppurative localization.

Much attention has been given to the possible involvement of the endocrine glands. Clinical symptoms of encephalitis which might be interpreted as evidences of endocrine disturbance are the weakness, profuse sweating, low blood pressure, menstrual and sexual disturbances, somnolence and the metabolic disorders resulting in an increase of weight. Pathological studies of the individual endocrine glands showed nothing definite except in the anterior pituitary gland and even here the changes were not uniform.

I personally feel that there is more involvement of the endocrine glands than most writers have assumed or than pathological studies have proved. There have been numerous reports in the literature of marked and characteristic endocrinopathic changes immediately following encephalitis. I myself have seen a few very striking cases but none more so than a patient kindly shown me by Dr. Ernest Hammes, of St. Paul, Minnesota. In this patient a rapid metamorphosis of all the secondary sexual characteristics was taking place. A previously healthy man was developing large tender breasts, ceasing to shave, undergoing an atrophy of the testicles, and mentally changing from a distinctly masculine to a distinctly feminine type.

#### SYMPTOMATOLOGY.

In the discussion of symptomatology one should consider first the modes of onset, then the various clinical types, then the respective symptoms of the involvement of brain, spinal cord, and peripheral nerves and finally the laboratory findings.

Modes of onset vary greatly. Both sudden and insidious attacks occur. Some patients are sick as long as a month before symptoms



are definite enough to make a diagnosis. The simple evidences of a general infection, e. g., a naso-pharyngitis and a slight fever are very frequent. With them come variously pains in the head, weakness, somnolence, delirium, general malaise, headaches, chills, nausea, etc. Nothing has been more characteristic of the disease than the tendency to the involvement of motor cranial nerves and for this reason strabismus has been one of the commonest early signs. It is not always present by any means. Apparently every cranial nerve may be involved but rarely all of them in one single case.

Somnolence is so frequently present as to have given rise to the name "Sleeping sickness" or lethargic encephalitis. It may, however, be absent and the severe condition, sleeplessness, may be present. Both conditions will be illustrated.

Symptomatology is probably best discussed in connection with illustrated cases.

Case 1. The following is a typical case of encephalitis and so far as I know was one of the first cases in Kansas.

This was a girl 17 living in Topeka who at Thanksgiving time 1918 was ill with influenza followed by pneumonia. She was delirious for several days.

After some 3 weeks in bed she was able to be out, and had returned to her work as stenographer for the Santa Fe.

During the first week in April she began to complain of a backache which was evidently quite severe, and "hurt with every step." Following this she had a headache all week, which was always over the left eye.

Ten days before I saw her she woke in the morning with a headache (as usual) and in addition nausea and vomiting. She went to work nevertheless that day but the next morning "didn't care about getting up." She vomited again and seemed a little drowsy. She vomited several times during the day and more times the next day. She kept getting more and more sleepy. Her physician was called and regarded it as an attack of indigestion. He gave her some medicine and she got better, in fact ceased vomiting entirely. She grew more and more drowsy, however, her speech seemed thick and her

right arm numb and asleep. Then followed an attack of urticaria. Her neck was stiff. She had a positive Kernig and a positive Babinski. She lay with her eyes half open, her mouth half closed, was very restless at night and very stuporous in the day time. Once or twice she seemed delirious for very short periods.

A careful examination showed a few signs in addition to the history which will not be listed because the essential features are already recorded. A lumbar puncture was done and the spinal fluid drained which was followed by distinct improvement. This was repeated several times. She seemed to get considerably better and for a time it was thought that she would get well. About the 12th of May evidences of pneumonia developed and she died on the 14th.

#### COMMENT.

This case illustrates the following points.

1. The method of the spread of this disease is entirely unknown. This was the first known case in this vicinity. There has been much discussion as to whether or not encephalitis represents a form of influenza and whether or not it always is preceded by influenza. Neither point is definitely settled but probably both are to be answered in the negative.

2. The insidious nature of the disease is well represented by this case. It is in sharp contrast to the sudden onset of the cerebral type of case.

3. Probably the best treatment in addition to that which would be proper for any general infection is the repeated drainage of spinal fluid. It undoubtedly improved this case although she did not get well and it will be illustrated in some of the subsequent cases in which it is sometimes followed by an improvement which is permanent.

Case 2. Mamie is a girl of 11 of Colby, Kansas, referred to me by Dr. W. J. Lewis. The history is that about October 1 she began to be irritable, cried easily, "would go all to pieces and fly into a temper," would think she was going to be late to school and very unusual for her, was "naughty" generally. She complained then of dizziness which was most prominent on the seventh of Oc-

tober. She walked with some difficulty, "staggering like a drunken person." She picked her way carefully across the floor and held on to something or some one whenever she could. She developed a slow, hesitant, whining voice, her lips and cheeks twitched; the tongue seemed stiff. She couldn't chew her food but took it into her mouth and gulped it down whole.

On the 14th, i.e., two weeks after the first evidences of the disease, she began to vomit. For the next two months she vomited from once to seven times a day without nausea and without warning. Soon after vomiting she was ready for more food. Once during this period she complained for a few hours of seeing double.

An entire change in her disposition occurred again at this time. She became very dull and stupid. She lay on the bed quietly, staring vacantly, seemingly indifferent to everything. She spoke very little and very slowly. Her memory seemed to be badly confused. She slept some but probably no more than normal.

All of these symptoms then gradually improved, except the headaches and vomiting.

An examination simply brought out the existence of the facts suggested in the history. Under treatment she steadily improved and was sent home December 21. I saw her at Colby on April 19 and found her doing very well indeed and practically free from all symptoms.

#### DISCUSSION

This case is noteworthy for the following points:

1. The onset of encephalitis may be as in this case slow and insidious and characterized first by mental changes. The mental changes are of two distinct types as well shown here. (Irritability was followed by apathy.)

2. The cranial nerves involved are not merely the eye muscle nerves as is so often assumed because of the frequency of strabismus, but may be the lower cranial nerves (9, 10, 11, and 12), causing, as in this case, marked changes in the voice, difficulty in speaking and swallowing and in the use of the tongue.

3. Apparently epidemic encephalitis is a

generalized infection of the whole body which strikes hardest at the nervous system and particularly the medulla oblongata. In some cases, however, the most conspicuous symptoms are those of spinal cord or peripheral nerve involvement (see case 4). In others the chief lesions are in the upper parts of the brain, and hence these are called cerebral or cortical or pallidal types. This is a good example of the latter in that there were distinct evidences of what is called cerebral vomiting. (She had with this a very slow pulse, a sub-normal temperature and localized headaches.)

A more striking case of the cerebral or pallidal type is the following one:

Case 3. Leona aged 8 of Sabetha, Kansas, was referred by Dr. W. R. Dillingham on October 6, 1920. This little child had been in school 2 years and was one of the brightest girls in her class. On September 5 she complained of a headache. The next morning she could not be roused. Her pulse was rapid but she had no fever. She was anuric.

Suddenly she began to have convulsions. They were generalized but the right side seemed to be more involved than the left. They continued at intervals of a few seconds for an hour and a half.

For the next 36 hours she could not be roused. There were marked evidences of acute nephritis. (this has been found to be quite common in encephalitis). She recovered from her stupor very gradually and was apathetic and dull for several weeks.

After the convulsions it was found that she was unable to speak and that the right side of her face, the right arm and the right leg were paralyzed.

Examination showed a flaccid paralysis of the right arm and leg and the existence of what is called a motor aphasia. (By this I mean that she was able to indicate the correct answers to questions, thus showing that she understood precisely what was said and knew what to say in reply, but she was unable to make any articulate sounds.)

A detailed physical and neurological examination was made which will not be given here because the main symptoms have already been indicated in the history. Our diagnos-



tic conclusion was in favor of an encephalopolio-myelitis, and in view of the report of similar cases since that time by other observers I am now convinced that this was a case of so-called cerebral or pallidal epidemic encephalitis.

Case 4. The involvement of peripheral nerves is occasionally a very confusing picture and is very well illustrated by the case of John, aged 21. The last week of January, 1920, he became very sleepless. He was so restless and upset that his physician confined him to bed. He then became delirious and continued to be so restless that he thrashed about in bed until the skin was rubbed from his knees, elbows and hips. Subsequently he suffered sharp pains in all parts of his body. These lasted about a week and he then seemed to grow better and he was able to return to work.

This case has had a very remarkable continuance. Although the somnolence which is so frequent in encephalitis was entirely absent during his acute illness, it began to develop after he was seemingly well. It is now 2 years since his first symptoms and although he has been at work most of the time since then he still suffers from an overpowering sleepiness which is so great that he is unable to resist falling asleep many times a day, in all places and at all times. Apparently he is improving somewhat under endocrine therapy. I regard this as a continuation rather than a sequella of encephalitis. I have no positive idea as to how it will terminate. When these cases first appeared all the neurologists were optimistic about the ultimate outcome, but of late the literature has been very pessimistic.

Cases 5 and 6. These two patients were seen in consultation with Dr. Walter Weidling and represent two definite clinical types of the disease.

Jamie was a lad of 13 with a negative past and family history. He had been perfectly well until one day he complained generally of malaise and was found to have a fever. The next day he was still more indisposed and stayed in bed. The next day he was delirious and drowsy. The following day he was more drowsy and more delirious and his

fever was 102. The delirium continued, a low muttering and a complete disorientation.

When I saw him the characteristic thing was his indifference. His answers were prompt and often correct but he lay quietly in bed completely indifferent to our presence going to sleep frequently during our conversation with him.

The neurological examination showed the following:

The right pupil was slightly larger than the left. The tongue was somewhat tremulous. There was a slight tendency to external strabismus of the left eye otherwise all cranial nerves were negative.

The left knee-jerk was distinctly more active than the right which was approximately normal. Ankle and foot jerks could not be elicited. The arm jerks seemed to be about equal and normal although I could not be sure of this. The Babinski test was occasionally elicited on the left foot.

Cremasteric reflexes normal. Abdominal reflexes not elicited. Kernig sign was distinctly but not markedly positive, both legs. The neck was slightly rigid but could be flexed on the chest although this was painful. Doing so caused a flexion of both thighs to a slight degree.

A white blood count was 9,200 by Dr. Weidling. A lumbar puncture by Dr. Weidling assisted by me showed that the spinal fluid was under no pressure and was quite clear.

A lumbar puncture was followed by almost immediate improvement. Within two weeks he seemed perfectly well.

#### COMMENT

In addition to the obvious point about treatment by means of the drainage of the spinal fluid (which permits a toxic and often times too abundant supply of spinal fluid bathing the inflamed portions of the brain to be replaced with a new supply of fluid) there is another interesting feature about this case bearing on the epidemiology of the disease. The details follow:

While Jamie was still in bed his younger brother suddenly took sick. He too had a fever and felt badly, generally. On the 2nd or 3rd day the parents found that he was

unable to move either foot. A few hours later both legs were entirely paralyzed. Dr. Weidling and I were called and in front of our very eyes the muscles of the abdomen were next paralyzed, (after the legs) then the arms, then the thoracic muscles. Diaphragmatic breathing continued until his death that same evening. His tongue was next paralyzed, then he lost the ability to swallow, the ability to speak; his facial muscles became flattened out and last of all the muscles of the eyes were paralyzed. Throughout all this time he seemed to be fully conscious. The onward march of death is rarely seen in so terrible or so vivid a form. The heart kept beating for an hour after it was necessary to begin artificial respiration.

This case would clinically be called one of Landry's ascending paralysis. At the time I thought it was probably an acute poliomyelitis, and we related it in some way to the brother's case of encephalitis. Since that time the tendency has been to regard poliomyelitis and encephalitis as distinct diseases, and moreover other spinal cases of encephalitis have been reported. In view of these facts and in view of the fact that I have since had another case of undoubted encephalitis from the same neighborhood, my present opinion is that this was an instance of two cases of encephalitis in the same family, one of the typical form and one of the spinal form.

#### SEQUELLAE

At the present time the literature is full of the discussion of the after effects of encephalitis. It was thought when the epidemic was at its height that the worst was at hand but since it has abated the neurologists have been faced with an entirely unexpected problem by reason of the great variety and great numbers of complications and sequelae in patients who were known to have encephalitis as well as in many patients who undoubtedly had encephalitis but in whom it was not recognized.

Some of the sequelae have been endocrinological as I have already mentioned. Others have been in the nature of character changes. I have at present one patient whose entire disposition has changed. Unfortunately this

change is usually for the worst and formerly good natured person becomes irritable and even offensive. Dr. M. L. Perry, superintendent Topeka State Hospital, has kindly shown me several cases where commitment to the State Hospital was necessary because of conduct and emotional disorder.

The literature contains references to all sorts of neuroses anxiety states, hysteria, depressions and psychoses as sequelae. Involvement of practically all the motor and some of the sensory nerves are reported. A few cases of epilepsy have occurred.

Two of the most common sequelae are represented by the two following cases, namely one of the so-called myoclonic or choreiform syndrome; the other the so-called Parkinsonian syndrome because of its resemblance to the paralysis agitans seen as an independent infection in old age.

Case 7. Edward is a bookkeeper of 28 years of age. He had what seems to have been a typical attack of encephalitis in January, 1921. The only unusual thing about his acute illness was the drop of temperature from 102 to 95 Fahrenheit, which seems to have been verified with several thermometers. He was referred to me in May, 1921, by Dr. C. E. Joss. At that time he had the following remnants of the disease: A slight droop of the right lid (3rd nerve paralysis), a slight strabismus of the left eye ball (6th nerve paralysis), a distinct flattening of the right side of the face (7th nerve paralysis), a deviation of the tongue to the right (12th nerve paralysis), a marked change in disposition and the following curious symptom: About once every 10 seconds whether or not the leg was at rest the adductors of the right thigh contracted suddenly and rather forcibly although not sufficient to move the leg if voluntarily held stiff. The result was a rhythmical twitch and jerking of the thigh. Ten weeks later the frequency had increased to about 17 per minute but the severity had greatly decreased.

This is a rather typical myoclonic type of sequella. The following represents the Parkinsonian type.

Case 8. Lester is 17 years old. On the 6th of December, 1920, he took suddenly very ill



with what his physician diagnosticated typhoid fever. The description of the symptoms and course left little doubt but that the case was one of encephalitis. He subsequently developed the characteristic appearance of paralysis agitans. In spite of excellent muscular development, he moves very slowly and irresolutely, with a festinating gait. He sits very erect and holds himself very stiff. His face is mask like, as if he were incapable of expressing any emotion but in spite of this he occasionally responds with a charming smile which belies the apparent paralysis of the facial muscles. He holds his arms slightly away from his body with the wrists and fingers flexed. He moves with great slowness so that frequently it takes him all morning to get dressed and all afternoon to get shaved. At first appearance he looks as if he were very much reduced mentally, and he is quite depressed about himself so that it would seem as if he were distinctly psychotic but examination shows this not to be the case. He is in fact surprisingly near normal mentally except for the extreme slowness of his spontaneous thought and actions.

Our general belief at the present time is that this is not strictly speaking a sequella but a specific form (continuation) of the disease. This opinion is based upon the fact that the same syndrome is seen in acute encephalitis as will be illustrated. It is probably to be explained on the basis of the involvement of the lenticular nuclei of the brain which have to do with the maintenance of posture and co-ordinated movement of the body.

An examination of an acute Parkinsonian syndrome in the disease is seen in the following case of Clyde, a boy of 15, who was seen in consultation with Dr. Wilkening of Fort Scott. This lad had been perfectly healthy until March 15 when he began to complain of headache and severe dizziness and shortly after that of sleepiness. He grew rapidly semistuporous and when seen on March 20 had been in that condition for at least two weeks. On the day before I saw him he had been suddenly very disturbed for a short time and evidently very delirious.

Examination showed a well developed lad lying in bed stiff, motionless, almost unre-

sponsive, answering once or twice in thick monosyllables. He lay as if just recovering from general anesthesia in a blank apathetic wooden fashion which is very characteristic. His face was of typical Parkinsonian cast, of masked or utter blankness and of marked rigidity. Frequent fibrillary twitchings were seen about the face and occasionally in the leg muscles. Such movements as were occasionally elicited were done slowly, stiffly and weakly. The picture was that of an acute Parkinsonian syndrome in a patient acutely ill with epidemic encephalitis.

A lumbar puncture done that afternoon showed an increase in globulin, albumen, a cell count of 8, a negative Wassermann, colloidal gold curve of 4455431000. A lumbar puncture with a drainage of considerable amount of spinal fluid was followed by immediate distinct improvement. In a letter from Dr. Wilkening this state seems to be continuing.

#### COMMENT

This case not only illustrates an acute development of so-called juvenile paralysis agitans or Parkinsonian syndrome of epidemic encephalitis but it also illustrates typical laboratory findings with the exception of the blood which is not reported. As a rule the blood findings are not far from normal. As previously stated the urine often shows albumen because nephritis is apparently frequently present.

Lesions of the lenticular nucleus do not always present the picture of Parkinson's disease. According to Ramsey Hunt, the location of the lesion in the large motor cells of the globus pallidus or paleo-striatum or pallidal system brings about this picture while lesions of the small cells chiefly found in the caudate nucleus and putamen or neostriatal system is in some way concerned with the choreiform syndrome. These structures are all situated near the center and base of the brain and the fibres of the internal capsule pass thru their midst. In a general way the globus pallidus lies to the outside and somewhat posterior to the other two portions.

That lesions of the lenticular nucleus do not always bring about either of these syndromes is very beautifully illustrated in a remarkable

of interest and necessary for intelligent pre-case upon which I am making pathological study, which was seen in life by Dr. C. E. Joss. This young man of 31 years had been perfectly well except that for about a month prior to his death he complained of dizziness and was perhaps somewhat semi-stuporous sometimes. On the day of his death he said he would lie down and take a nap and an hour later they found him unconscious. He was given artificial respiration for 12 hours when his heart stopped beating. The chief lesion was a great number of minute hemorrhages in the lenticular nucleus of both sides of the brain. My present opinion is that this was the final (and in this case fatal) manifestation of an encephalitis of a month's duration. Whether or not it was epidemic encephalitis I do not know.

#### SUMMARY

An acute, subacute and marked disease of the most widely disseminated lesions with almost limitless variety of disturbances of motility, sensation, co-ordination, reflexes, and of mind, but most frequently seen in certain characteristic groupings has spread all over the world in the past five years. The most common syndromes are:

1. Somnolence and paralysis of the eye muscles.
2. Paralytic syndromes.
3. Amyostatis or Parkinsonian syndrome.
4. Hyperkinetic.

Diagnosis is sometimes impossible to make definitely but (according to Barker) "the occurrence in a patient of (a) pathological drowsiness (lethargy), (b) cerebral nerve paralysis (especially ophthalmoplegia), (c) an acutely developing Parkinsonian syndrome, (d) a cataleptic or a catatonic state, (e) a myoclonia, (f) a chorea, (g) pupillary disturbances, (h) violent neuralgia, (i) a poliomyelitic syndrome, (j) a peculiar delirium, (k) a psychotic state, or (l) signs of meningeal irritation in times when encephalitis is epidemic should make one think of the possible existence of the disease." Sequellae are as yet so various and so poorly known as to defy any, but the most general classification. Treatment, in our present state of ignorance, must be in general symptomatic.

#### Hexamethlenamine: Its Use and Misuse

A. G. DUMAS, M.D., Osawatomie, Kans., State Hospital,

Read before the Miami County Medical Society, Osawatomie State Hospital, Osawatomie, Kan., March 31, 1922.

The writer in presenting for your consideration the subject of hexamethylenamine has been prompted by the fact that probably no drug has come into such wide usage for the treatment of infections of the urinary tract. It is prescribed daily by hundreds of physicians with little or no regard as to the proper method of compounding it in order to get the desired therapeutic effect or the correct method of administering it. The great laxity among many prominent medical men in the proper use of this drug was very much impressed upon the writer while working in the prescription department of a drug store in one of our large middle western cities while still a student.

In this short article I will endeavor to give a general description of this drug relative to its preparation, properties, solvents, incompatibilities, the various trade names it is sold under, its therapeutic action according to modern authority and then discuss its use and misuse. My aim will be entirely to recall past recollections of our knowledge of this drug and corroborate this with recent additions of experience as to its proper use trusting that it will assist in an effort toward better therapeutics.

Hexamethylenetetramine which was the primitive name of this drug was originally used by Nicolaier in Germany. The latin title was shortened upon its admission to the United States Pharmacopoeia to hexamethylenamine.

It is a condensation product when ammonia reacts with formaldehyde. It is prepared by passing a current of dry ammonia gas over warm trioxymethylene or (para-formaldehyde) and purifying the product by treatment with charcoal and re-crystallization. It occurs in colorless, lustrous crystals or as a white crystalline powder all of which are odorless. In aqueous solution it alkaline to litmus. As to its solvents one gram dissolves in 1.5 mls of water, 12.5 mls of alcohol, and 320 mls of ether. Its incompatibles are



scribing and dispensing. Mercuric chloride or tannic acid precipitates it from aqueous solutions. It is decomposed by hot water; sodium salicylate, phosphate, or benzoate do not precipitate it from solution. It liquifies when rubbed with lithium carbonate or benzoate, sodium or phenyl salicylate, sodium benzoate or antipyrine. It liberates acetic acid from aspirin followed by formaldehyde.

Hexamethylenamine is sold under the following trade names: Urotropine, Urotropin, Cystogen, Formin and Aminoformin.

This drug owes its action entirely to the liberation of formaldehyde which occurs only in acid fluids. It is an active urinary antiseptic provided the urine is not secreted in an alkaline state. (Kanzlik) has shown that no antiseptic effects can occur in body tissues and fluids which have a neutral or slightly alkaline reaction.

It is of especial value in infections of the urinary tract when properly administered. In the decomposition of urine which is extremely frequent in the cystitis of prostatic hypertrophy, the maximum dose given for two or three successive days is efficient in clearing the excretion. In gonorrheal urethritis its value is questionable according to reports of those who have used it. In cystitis, pyelitis, tuberculous kidney, nephritic abscess and ureteritis it has been used with good results. It has been advocated by many authors as a prophylactic against nephritis especially in scarletina and before operation upon the genito-urinary tract.

Although this drug has its limitations experience has shown that if properly administered with the patient under careful observation in about sixty-five per cent of cases in which there is an infection of the urinary tract it is of immense value and in fact superior to any drug in common use.

(Showl and Deming<sup>2</sup>) state a solution of liquor formaldehyde in strengths of 1-5000 to 1-10,000 in two hours at body temperature will kill from 80 to 90% of bacillus coli. It has been shown that the rate of transformation and amount of formaldehyde formed from hexamethylenamine depends on the hydrogen ion concentration of the urine. It

is necessary for a urine to be strongly acid to phenolphthalein to obtain from 80 to 90% antiseptic power in two hours.

To secure the maximum therapeutic effect from this drug the following precautions must be strictly adhere to:

It must be administered with a drug which will acidify the urine up to the proper concentration to give the maximum amount of formaldehyde transformation. The average dose of hexamethylenamine namely  $7\frac{1}{2}$  grains should be disregarded and its therapeutic effect used as an index as to the dose in each case. This can be accomplished by using Rimini's test which is of value in determining the amount of liberated formaldehyde. This procedure which is very simple and not only of value in determining the dose of hexamethylenamine but shows those cases which no results from this drug can be obtained. The following is the test in detail:

*Rimini's Test*—To 10 c. c. of urine add—(1) Solution of phenylhydrazin hydrochlorid (0.5 per cent), 3 drops; (2) solution sodium nitroprussid (5 per cent), 3 drops; (3) saturated solution sodium hydroxide, a few drops run down the side of the tube. If formaldehyde be present, a purple color appears, changing to green, and finally to pale yellow. If absent then the color is red changing to light yellow. This test is useful in case of liquid foods, aqueous or alcoholic extracts of solid food, and may be applied directly to milk. When formaldehyde is present more than 1 part in 70,000 to 80,000, a green or bluish-green reaction is obtained. In more dilute solutions the green tint becomes less marked and a yellow tending toward greenish brown is formed.

The best results have been obtained by prescribing this drug in aqueous solution along with acid sodium phosphate or benzoic acid. By this method the drug can be started at doses of  $7\frac{1}{2}$  grs. of hexamethylenamine and 5 grs. of one of the above acids three times a day and the former increased until free formaldehyde is found in the urine by Rimini's test. The drug may be increased up to 50 grs a day until free formaldehyde is found in the urine as the only ill effects from

the drug is due to the liberation of free formaldehyde. Another sign of value in determining the dose of this drug is the symptom of vesical irritability. It is an excellent indicator in the majority of cases as to when to discontinue or diminish the dose. A dose just under that which will cause bladder irritation will usually give excellent results with unnecessary long continuation of the drug. It has been used over long periods of time without any impairment of the general health or that of the kidney function point of interest in passing is that it is excreted more slowly by the kidney of chronic nephritis.

As to the misuse of this drug but little thought is given to the dosage for different individuals. It is prescribed in doses of five grains and upwards without regard for its therapeutic action and rarely with an acid which would suggest total ignorance on the part of physician as to the reaction of the urine. It is a well established fact that it yields the best results when given in aqueous solution. This point is seldom given consideration in compounding it.

It has been used extensively in anterior poliomyelitis, meningitis, cholecystitis, cholelithiasis, typhoid fever and affections of the respiratory tract with the idea in mind that it will liberate formalin. Its value in these diseases has been found to be nil and experimental investigation has fully substantiated this. (Burnham<sup>3</sup>) done some very interesting work in this respect and the following is a brief resume of it. He has found that after large doses of this drug on examination of the bile, sputum, saliva and cerebro-spinal fluid that traces of the drug in percentages less than 1-150,000 were found. His conclusions which were corroborated by Hanzlik who worked along the same line were that the curing or bettering of, or as a prophylactic agent in infections of the bile passages or respiratory tract, cerebro-spinal fluid or affections of the nervous system is illusory and cannot yield results, as can be readily seen this is obviously due to the fact that there is no acid medium in these fluids and no means of producing it.

In conclusion I wish to say that the age

of empiricism and prescribing with utter disregard for therapeutic action is passing. The dawn of a new age in the intelligent administration of drugs is now at hand. The older methods have had their vogue and are now interred and let us hope forever. When a cathartic is prescribed we rarely fail to inquire from the patient as to whether the effect we had anticipated has been obtained. If this holds good for this group of drugs why not for the others? With advancements in every field of medicine progressing why let the field of therapeutics lag? Let us keep pace with modern therapeutic progress namely, the giving of drugs for their therapeutic action and obviously let the dosage be guided by it. Let us by careful observation note what drugs are doing that we can prescribe more intelligently and utilize our instruments in such a manner that they will yield the best possible results.

- (1) Hanzlek—*Journal A. M. A.*, January, 1914.
- (2) Showl and Deming—*Journal of Urology*, Baltimore, October, 1920.
- (3) Burnham—*Archives of I. M.*, 1919.

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Tuleraemia is a mysterious disease in Utah. It is affecting the laboratory workers of the United States Public Health Service and is caused by the bite of any one of six different insects. The infection causes fever and disablement of the person bitten for several months. Few fatalities are caused by the disease. This affliction on Utah is in addition to that of polygamy. Tuleraemia is caused, probably, in the same way that the mosquito causes malaria. The polygamous blood has engendered an enzyme that monogamy can't resist. Or it may be a visitation of Providence on the employees of our government for the sin of the nation in having tolerated the practice of polygamy.

To the doctor, in the main, who's on the wane—'tis sense divine to quit in time the strenuous life when nature hints by marks and stints in onward strife, that vitamins are scant in blood supply, that you and I in battle bent for many a year may now anent and in-voice take of life, now here and there on this old sphere, before the break of life's small thread and "lined up are we with the dead."



# THE JOURNAL

of the

## Kansas Medical Society

W. E. McVEY, M.D. - - - Editor

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### The Annual Meeting

A great many of those in attendance at the meeting just closed were pleased—everything was just as it should be. A good many others thought the program was not up to the usual standard, the attendance was not as large as it should have been and many other things fell below their expectations. In other words there are two opinions about this meeting as there have been about every meeting that has been held and will be about every meeting yet to be held.

It might be worth while to study a little history and make a few comparisons. The Society met in Topeka thirty-four years ago. There were about 300 members and about 200 in attendance. We have now more than 1500 members and there were 284 registered at this meeting.

The meeting held thirty-four years ago differed in no particular manner from the one just closed, except, perhaps the papers were more generally and more thoroughly discussed at that time than was the case at the last meeting. A two-day session was held then and a considerable amount of time was consumed by the delegate body in the transaction of business as was also the case at the last session.

In thirty-four years the Society has made great progress and every year becomes of

more importance to the profession in Kansas. It affords its members such a variety of benefits and privileges for such a pittance in membership fees that men no longer have to be urged to join but seek the privilege of membership of their own accord.

It seems strange then that while the Society has made such progress in every other way its annual meetings should still maintain the standards of its early history. Any one who will take the trouble to read the proceedings of the meeting thirty-four years ago will readily admit that there were some excellent papers presented at that meeting, there was much interest in the program and all were well pleased. But while sixty per cent of the members attended that meeting less than twenty per cent attended the same kind of a meeting this year. The conclusion is that there are only about 300 physicians in the state who are attracted by the kind of meeting the Society has been in the custom of having. Obviously, an effort should be made to find out what kind of a meeting will attract the other 1200 members. It has been demonstrated that the attendance is larger when a three-day session is held but even then the per cent of attendance is too low. It certainly is not necessary that we adhere to the old kind of program just because we have always done so. There must be some one among our members who can suggest an improvement upon our present plan and the Journal will be open to all such suggestions.

During the thirty-four years to which reference has been made, the sessions of the delegate body have always interfered with the program. No matter how carefully the schedule has been arranged it has been found necessary to carry on the program of the general session while the delegate body was also in session. This has always been unsatisfactory to those who read papers at that time and to those who were unable to read their papers at the proper time because they were detained by the meeting of the delegates.

The business of the Society is sufficiently important that it should be transacted with careful deliberation and the program should not be rushed through with hurried impatience. Sufficient time should be provided

for the business sessions but these should not conflict with the scientific program. Everyone is convinced of this—everyone has been convinced of it every year—but for some reason no one has been able to solve the problem. It simply cannot be done in a two-day session and is very uncertain in a three-day session. One day is not too much to devote to the business of the Society.

As one grows old he becomes more and more attached to the old order of things, looks upon progress with suspicion, disfavors all attempts at change. Many of us who have grown old in the Society are jealous of many of its traditions and hold tenaciously to the prerogatives of yesterday. Such an attitude is commendable only in the loyalty it signifies, for it retards progress and discourages the efforts of our younger and more progressive members.

Our Society has grown in importance to the whole medical profession, so much so that membership confers tangible benefits and some provisions should be made by which every eligible physician in the state may become a member. At various times amendments to our by-laws have been made which were intended to accomplish this result. Many of the counties in the state are still unorganized, but under our present rules physicians in most of these unorganized counties may affiliate by joining neighboring county societies or multiple county societies which sometimes include the counties of a whole district. This, however, does not meet all of the conditions. There are a number of county societies that have such infrequent meetings that many eligible and desirable men have no opportunity to join. They are not permitted to join the larger and more active society in an adjoining county so long as there is an organization in their own county. The Council attempted to provide also for this contingency by amending the by-laws so that a qualified applicant to whom there was no objection could be enrolled without a formal vote of the society, but the amendment was defeated by a small majority.

## CHIPS

The phrenoscope is an instrument with which to read the human mind.

The injection of nucleinic acid is recommended as a cure in tuberculosis.

A man who works his brain needs to take time off and work his body at equally as regular intervals, to keep himself fit.

Foods rich in calcium salts favor the growth of goitre. The Swiss live largely upon milk. Milk is one, if not the best, bone food. Proof? The calf.

Excessive water drinking is too often a fad. Urging or advising people to drink water when they are not thirsty and thus acquiring the habit and water logging their tissues and overtaxing their depurative organs is as sensible as it is to urge them to eat and over gorge when they are not hungry. When a man is well he should not drink water unless he is thirsty.

The statement is borne out by facts that a sure cure for headache is to remove the head.

Corn oil is made from the germ or vital part of the corn. Processed meal is made of the residue and is dead food.

Commercial or fruit stand orangeade is made of ground orange with a little of the rind in it, water, sugar and acetic acid.

In the local paper of a western Kansas town a resident physician advertises himself as "Physician and Surgeon. Diseases of Women a Specialty. Sex Control." Different interpretations may be given the latter part of this advertisement, but it will no doubt appeal to certain classes of people.

Dr. Richard L. Sutton, Kansas City, Mo., was recently presented with the honorary degree of Doctor of Laws by the University of Missouri, in recognition of his worthy achievements in scientific and practical medicine.

Dr. W. J. Stewart who has practiced in Summerfield for many years has removed to Frankfort.



"Absence of occupation is not rest,  
A mind quite vacant is a mind distressed."  
—*Cowper*.

When energy is pretty evenly divided in its use between the muscular and mental systems it establishes and maintains a healthy equilibrium of the organism and is rest.

The Bulgarian bacillus has disappointed the medical man. The chances are the medical man misplaced the bacillus. If the bacillus could speak it would tell him that he had mistaken its function. Tried to get it to do something it was not formed by nature to do. Dr. C. C. Bass, professor of experimental medicine in Tulane University, New Orleans, says that the bacillus *Bulgaricus* which Dr. Metchnikoff believes would combat the malign putrefactive germs in the intestinal canal and thus ward off disease, has been proven inefficient by laboratory experiments. The inefficiency of the *Bulgaricus* for the purpose used had been found out by a number of physicians in the living laboratory of their patients, moons ago.

Adrenalin (epinephrine) can be prepared artificially, the same as salicylic acid. While these synthetical preparations are the same in chemical composition some physicians claim that they are not of equal therapeutic value to those made in nature's laboratory?

It is estimated that the annual drug bill of the nation is \$500,000,000 of which amount \$300,000,000 is spent for patent medicine. The amount spent for the latter is more than some doctors make in one year.

We are told that chemistry deals with the transformation of matter and physics with the transformation of energy. Energy speeds us up and its activity depends upon the slow or quick action and reaction of the chemicals concerned in consultation in our bodies as to their agreement or disagreement. When an agreement and reaction takes place energy is born and bubbles over in its manifestation—as Life.

Numerology is the science of summing up what one doesn't know. That is what he knows he doesn't know but is obsessed with

the idea that what he doesn't know and ought to know is thickly veiled in obscurity, so much that he can name but a paucity of his ignorance.

Moral: It is the beginning of wisdom with such a one.

A Coincident? The World War ceased at the eleventh hour on the eleventh day of the eleventh month. The eleventh verse of the eleventh chapter of the eleventh book of the Bible reads as follows: "Forasmuch as this is done of thee, and thou hast not kept my covenant and my statutes which I have commanded thee, I will surely send thy kingdom from thee, and will give it to thy servant."

Dentists say that "the diagnosis of pyorrhoea is certain (?) but its prognosis is not so certain." Auto-intoxication is the favored belief as to its cause. The infection is in the blood. It is put in the blood by the intake of nutriment to supply the bodily wants and to satisfy a perverted appetite at irregular intervals and in excessive quantities by a supposed intelligence in charge of the body. The food proposition is in line with the physician's dawning idea that wrong diet predisposes to cancer. Removing the teeth does away with the dump, dump, or pit or the pus forming bacilli's rendezvous. It is taken for granted that the antibodies will take care of the remaining deleterious toxins in the blood and break up its naughty purveying habit in feeding pus cells. This is as far as can be gone by implication. It is good dope what there is of it and plenty of it such as it is. It is as far as we can go at present and it is a beginning. However unless strict attention is given to the food element, the dietary of the pyorrhoeic patient, to keep the blood stream clean, the dyscrasia is likely to continue and crop out elsewhere in the body on the least provocative.

Wireless light has been invented. We are told that it approximates the cold light long sought but not as yet found. The lamp is said to burn three years and with a white brilliance in any position. It cannot be turned out and a metal current is provided for it.

The inventor says that 100 candle power lamp which he is making for \$3.00 will burn three years without attention. It is intimated by the inventor that light is produced by the attraction of chemicals in the base for an interaction upon the atmospheric electricity. A factory has been opened in Harrison, N. J., and the company incorporated under the laws of Delaware. "Bottled Sunlight" is the way the company characterizes its product.—*L. A. Times*.

Wireless happiness we have had with us always and its opposite. It is the new name given to the effect different persons have on us and we on them when in each other's presence.

"A diphtheria test in determining the susceptibility to or immunity of children from diphtheria, as reported by Dr. Kelley of Berkeley, Calif., consists in mixing a small quantity of blood taken from the suspected child, with diphtheria toxin which is injected into a guinea pig. If the child from whom the blood was taken is susceptible and requires vaccinating, there will be a reaction on the pig within *twelve* hours. If the pig does not react there will be no suspicion of the disease in the child. Four days or more are required to determine the susceptibility or immunity of a child under the old method." The inference is that diphtheria is in the beginning a constitutional and not a local infection. For readers who are as obtuse in comprehension as the writer it may be mentioned that the time limit is more important to the child than to the pig.

The Governor of Arkansas (s), by proclamation, has set March 22 as "No Tobacco Day" in that state. He declared his belief "that the general use of tobacco by men and women from youth up, generation after generation, is contributing to unmistakable and certain degeneracy." The Governor might have included laziness and do-lessness in his findings against the continuous excess use of tobacco as demonstrated in the case of Jim and Cis a young couple who lived in a little log cabin by the side of the road in the Ozarks. Jim was sitting on a box leaning back against

the logs of the cabin, facing the road, smoking and chewing tobacco between smokes. Cis sat on a piece of a chair with her back against the porch post facing Jim and her back toward the road. She was smoking and chewing and using the snuff stick occasionally, when the following conversation took place.

Cis. What's that noise I hear on the road?

Jim. That's old man Blank's funeral goin' by.

Cis. Is it purty fine?

Jim. It's a mighty big funeral.

Cis. What a pity I'm not facing t'other way.

William Kerley drove into Mountain Home a few days ago with an odor coming from the exhaust pipe of his "Henry" that made people thirsty. He ran out of gasoline in the mountains and couldn't procure any, so he filled his tank with moonshine. It is said the car had a musical note in its cough and was doing the highland when it struck town, and that it had to be coaxed before it would run on gasoline again.—*Pocahontas State Herald*.

The truthfulness of the Herald's story is strengthened by the answer of the home brew, negro prisoner at bar whose name was Joshua. When the Judge asked, "Are you the Joshua who commanded the sun to stand still?" he said, "No sah! No sah! I'se de man dat made de moon-shine."

Dr. Conlin presents a well-balanced discussion of pulmontry syphilis, including a brief historic review, and cites a case with x-ray findings. He gives Fowler's (author of "Diseases of the Lung") classification of syphilitic diseases of the lung as follow:

Hereditary Type:

1. Gummata.
2. Pneumonia.
  - a. White pneumonia.
  - b. Interstitial type of pneumonia.
  - c. White broncho-pneumonia.

Acquired Type:

1. Gummata.
2. Broncho-pneumonia.
3. Chronic interstitial pneumonia or fibroid induration.
4. Syphilitic phthisis, a progressive destruction of the lung.



The author concludes that a definite history of syphilitic infection and repeatedly positive Wassermann reactions are sufficient evidences of lues. However, it is not unusual for lues and tuberculosis to coexist in the same individual, but the gradual onset, the slow course, the physical findings at the base of the hilus, with little fever, are not those of tuberculosis. These combined with the repeated absence of tubercle bacilli, with the positive Wassermann reaction, and the typical x-ray findings, with definite change in the physical and x-ray findings under treatment, combined with the marked improvement in the general physical health, are sufficient evidences to indicate beyond a doubt the presence of pulmonary syphilis.—*Pulmonary Syphilis*, by Frank Conlin. *The Journal of Radiology*. March, 1922.

There are contained in this article discussions on the various means of diagnosing late hereditary syphilis. The author differentiates three means: By general physiognomy examinations, by the Wassermann reaction, and in doubtful cases with negative Wassermann reactions, by the therapeutic test. The following conclusions are significant:

1. Late hereditary syphilis is a remarkably protean affair and may simulate, as does the acquired form, and known disease.

2. There are certain stigmata, such as the Hutchinson triad, the sabre like tibia, the matiform skull and the peribuccal scars which may be said to be almost pathognomonic of that disorder.

3. From the standpoint of late inherited neurosyphilis, the presence of the Argyll-Robertson pupil as well as absence of the patellar and tendo Achilles reflexes are of extreme importance.

4. The Wassermann reaction is a valuable aid but should not be permitted to displace sound clinical judgment. It should be regarded as a valuable symptom when present. Its reactivation is also possessed of a certain value but like the Wassermann, does not possess an absolute value.

5. The therapeutic test has been and remains a tried and true friend.—Some points in the diagnosis of late hereditary syphilis.

By Dr. B. Barker Beeson, *Illinois Medical Journal*. Vol. xl, No. 3, September, 1921.

April 22nd marks the passing of the last of the old independent medical weeklies—the Medical Record. The final issue as a separate publication appeared on that date and announcement was made that the Medical Record had been sold to, and combined with, the New York Medical Journal, which appears semi-monthly.

Throughout the fifty-six years of its service to the profession, the Medical Record has had the same publishers and but two editors. Dr. George F. Shrady guided its course for the first thirty-eight years and was succeeded by his assistant, Dr. Thomas L. Stedman, who has long been dean of American medical editors, and widely esteemed. The famous old firm of William Wood & Company will now devote its energies entirely to the publication of medical books in which service it has been engaged for 118 years.

It is interesting to recall that many of the most important discoveries and developments in the progress of medicine were first announced to the American profession by the Medical Record. These include Lister's method of antiseptics; Koch's discovery of the tubercle bacillus and that of tuberculin; the employment of cocaine in eye surgery; the Roentgen rays; the discovery of the antitoxin of tetanus and that of diphtheria; Madame Curie's discovery of radium and many others.

—R—

### The St. Louis Meeting of the American Medical Association

The American Medical association is a scientific organization but is composed of members with more than the average amount of "humanity" in their make-up with social elements too long repressed. These members are weary from bearing the responsibility of many human lives. Instead of having play time they have become public teachers with no recess. The local entertainment committee of the A. M. A., have been busy preparing to show these visitors true St. Louis hospitality and to provide for them such diversions as well be both restful and entertaining.

The golfers will arrive early in order to

participate in the annual tournament on Monday, May 22nd.

Tuesday evening the opening meeting will be held in the Odeon and arrangements are being made to have the music and addresses transmitted by radio to various parts of the city and to distant cities.

Wednesday evening is given over to banquets, such as Alumni, Fraternal, Sectional, etc. On this evening provision is being made to entertain the visiting ladies and those doctors who are not engaged at the Alumni and Fraternity dinners at one of St. Louis' noted moving picture shows with special musical and other features for the occasion.

On Thursday afternoon the Medical Department of Washington University is giving a special tea, on the grounds of the institution. Thursday evening will be given over entirely to the President's Reception and it is hoped that as many as possible of the doctors and their ladies will grace the occasion with their presence.

The committee after visiting the offices of the Mayor and the Director of Public Welfare and being assured of their cooperation have decided to reserve until Friday evening the chief feature of their entertainment by giving a special program for the entire association in the unique open air Municipal opera which has a comfortable seating capacity of ten thousand. The location of the opera in the heart of Forest Park with its special lighting effect made possible by the natural foliage of the forest can be appreciated only by those who visit it at night. It is the hope of the committee that every visitor at the convention will remain in St. Louis through Friday evening.

The ladies entertainment committee under the leadership of Mrs. Willard Bartlett has arranged to take immediate charge of every lady visitor who may be persuaded to accompany the medical member of the family to the convention. They need have no fear of being left alone while the doctor is attending the scientific meetings, for practically every hour of their time has been arranged for and it is hoped that many more ladies than usual will visit the City of Homes—The Friendly City.

A special visit to Missouri Botanical Gardens is being arranged and will be an important item in the entertainment program. Among other features to be shown will be an old Italian Herb garden. St. Louis is justly proud of its world famous Botanical Garden.

Take the whole week off, Doctor, and spend it in St. Louis. It will be time well spent. You may lose a patient, some may get well during your absence, but your increased vigor when you get back will abundantly make up for any losses. Come to our party for one full week.

Dr. C. E. Burford, 3525 Pine St., is Chairman of the Entertainment Committee.

—————R—————

### **Medical Courses to Be Offered in the Summer Session of 1922 in the Kansas University School of Medicine**

These courses are designed especially to meet the needs of the general practitioner who wishes to brush up in medicine and become acquainted with recent advances in medical science and to give him experience and a better insight into the value of modern clinical and laboratory methods of diagnosis and treatment.

Three courses will be offered by the Department of Medicine. Each course will be given two mornings a week during the session. One will be given by Dr. Russell L. Haden, who has charge of the clinical laboratory diagnosis and metabolic clinic of the university hospital. His course will include practical work in basal metabolism, blood chemistry and serology. The value of blood sugar tolerance tests in diabetes and blood urea and creatinine determinations in nephritis are two of the instructive subjects scheduled. In addition, ample opportunity will be given to acquire skill and experience in such elementary procedures as blood counting, examination of blood and sputum smears, gastric and duodenal analysis, urinary examinations, bacteriological methods, Schick test for diphtheria, etc. The work of the course will be arranged where possible to fulfill the needs of the individual physician without compelling him to stay the entire six weeks if only able to remain a few weeks.



Another course will consist in a series of bedside clinics and ward walks by Dr. Peter T. Bohan, Professor of Clinical Medicine. This will include a thorough discussion of the differential diagnosis and therapy supplemented by fluoroscopic findings, x-ray, Wassermann test, metabolism studies, etc.

The third course will be given by Dr. Ralph H. Major, Professor of Medicine. This course will place special stress on physical diagnosis. Patients will be assigned to members of the class who will make their own physical examination followed by a general discussion of the case. A constant effort will be made to show that an accurate diagnosis and successful treatment may be made without more than the equipment found in the average practitioner's office.

The Department of Pathology will offer a course in autopsy technic, tissue diagnosis and functional pathology. This will be given by Dr. H. R. Wahl, Professor of Pathology. Special emphasis will be placed on the pathological basis of disturbances in function and a close correlation with the clinic will be maintained. When an autopsy is performed a conference will be held with the clinical men in order to compare the findings of the clinic with those of the postmortem room.

While the above four members of the staff are specially planning work for the graduate physicians, all students enrolling in the summer session will be welcome and given instruction in the clinics given by other members of the staff, such as Orr, Francisco, Sudler, Ockerblad, Curran, Hall, Hertzler, Guffey, Walthall.

The only fee required is the regular summer session fee of the university which amounts to ten dollars. The session will begin June 12 and end July 24. While attendance throughout the session is most desirable, enrollment for a shorter period should prove profitable. For further information address the Dean of the Medical School at Rosedale.

—R—

### Reflections by the Prodigal.

#### *Why An Alienist?*

An insane person does not know right from wrong. He is as liable to kill a friend as a

foe. Society and the law does not hold an insane person responsible for his conduct although he may have killed his fellow man. He is restrained of his liberty and in this way society protects itself.

The treatment of insanity has progressed in line with the general practice of medicine. The newer insanity has grown a nomenclature that constitutes a language of its own. It simplifies the old classification of insanity and enables the alienist to sign board the line of demarkation and rob psychic action of much of its heterophoric mystery to him. Although it is a simplicity that adds to the average physician's complexity, it confounds judges and juries in courts of law in meting out justice to the criminal. The tendency of the reasoning power of the specialist is to restrict him to that particular feature of the science or art to which he devotes his time and efforts. He acquires a sensitive susceptibility to psychic phenomena that places the nebular hypothesis in the offing. The alienist tells us that insanity is a more or less permanent unsoundness of mind; mental disease; a condition marked by abnormality of the reasoning faculty; hallucinations, illusions and delusions, with irresponsibility and a lack of understanding of the nature of one's speech and actions. That an illusion is a false perception, the mistaking of something for what it is not. When this illusion is fixed and cannot be removed by evidence to the contrary it becomes a delusion. Hallucination—to wander in mind. A subjective perception of what does not exist. Delusion—to deceive. An immovable illusion or hallucination, a false belief or wrong judgment. In the case of a man who had shot his wife to death and then shot himself but recovered, he was tried for murder and convicted of manslaughter. Three alienists who constituted the psychic examining board of the city and county (of 800,000 inhabitants) testified that the man had confusional insanity. Another alienist testified that the man was sane. The gist of evidence on the part of the three alienists was that the prisoner had illusions, hallucinations and delusions—confusional insanity. One of the jurors in the case asked the leading alien-

ist for the defense, "Do sane persons ever have illusions?" Answer. "Yes". "Do sane persons ever have hallucinations?" Answer. "Yes". "Do sane persons ever have delusions?" Answer. "Yes". The prisoner was convicted as before stated.

A few days after the conviction of the murderer the alienist, who testified to the sanity of the prisoner, told the juryman, who had questioned the defendant alienist, that he had several conversations with the prisoner before the trial, in the jail, and finally looked him in the eyes and said, "Mr. Blank, you are no more insane than I am." Blank said. "I know it, but let me off as easy as you can."

This alienist reported a case in which the murderer got off on the insanity dodge. In due time he was sane again. The alienist said to the murderer (an Italian), "You were not insane and I so testified at your trial. Why did you plead insanity?" Answer. "My lawyer he gotta me to."

Are alienists dishonest? Are they needed? The great mass of alienists are honest. They are needed as projectors in evolutionary psychological progress.

But in confining themselves to one thing they become eccentric—a little off center. Their mental activity becomes so keen that they can see too often the potentiality of insanity in all of its various ramifications in every criminal act when looking through chromatic lenses made of \$ \$.

Conclusions. The alienist is an essential factor in progressive, evolutionary histology and pathology of man's mentality.

In the common, practical, workday conduct of the individual, the alienist is hypercritical and, as yet, his supersensitiveness must be toned down by the average medical man and plug layman to mete out justice to the criminal.

#### *An Insinuation?*

There is an animal whose teeth set backward in its mouth at an acute angle the same as the barb on a fish hook. It insures the safety of the catch when in the animal's mouth the same as the barb on the hook holds the fish. Scientists tell us the same anatomical condition is present in the mouth of the

a fellow's mouth they can't back out and are swallowed and are destroyed by the juices in the alimentary tract. And farther—but few harmful bacteria lodge, on their oesophagee way, on the fauces and tonsils. These few are taken care of by the plain clothes health officers stationed at the port of entry.

Slight sore throat and inflamed tonsils are caused by the disturbance the pathogenic bug causes when the health officer arrests him in the act. The majority of more serious inflammations of the throat result from lack of rational help and from outside interference.

Instead of moral support and a little purification by way of a gargle or mouth wash, to help the peace officer, he is ignored and violence resorted to by the meddler and the tonsils is removed.

Nine of these tonsils out of ten that have been removed could have been saved and the possessor had a normal throat and voice if nature had been assisted a little by cleansing the sewer, asepticizing the throat and mouth by a cleansing and diluting agent together with proper diet.

We conclude therefore that our practice is governed largely by the age in which we live. viz., Hurry—

(a) which encourages meddling.

(b) and a forgetting our partnership with nature.

(c) hence lack of team work.

Ethylhydrocneptine is a derivative from quinine. It is the antidote for the pneumococcus?

Quinine was a favorite remedy of the old practitioner in the treatment of pneumonia. He gave quinine in pneumonia on the theory that it equalized the circulation of the blood. How it did it was beyond his ken. He thought, probably, that pneumonia was one of the diseases that originated "de novo" (without a cause).

Hence his treatment of pneumonia, the same as many other diseases, was empirical. While he had a troubled idea that there was a relation between cause and effect, knowledge had not cleared away the mists which obscured his mental vision and "de novo" blanketed his ignorance. His knowledge was human; and when pathogenic bacteria get in



gained by the effect the medicine he gave had on his patient—"empiricism". The "de novo" blanket is the adbare and has been put aside now and to every effect is attributed a cause. The cause may not be known always but enough is known to stimulate search for it. However the old doctor's experience afforded a basis or footing for the later practitioner to stand upon. But instead of experimenting on his patient to determine the therapeutic effect of his medicine the same as the old physician did, he uses the lower order of animal creation to experiment upon and tabulates the results, classifies his knowledge, arranges it methodically and makes a record of it. He does away with raw experiment on his fellowman, empiricizes on the brute creation and thus civilizes and humanizes empiricism and is gradually approaching the border line of the scientific practice of medicine.

### *Quinine.*

Quinine has been subject to analysis and quizzed and acknowledges that like its congener, cocaine, in its mission of relief to human ills, that its molecule is composed of numerous atoms. One of these atoms of quinine kills the pneumococcus or inhibits its activity; another of its atoms antidotes the plasmodium malaria and so down the line.

### *The Molecule.*

The molecule is a big thing when all of its inwards or parts are counted. The chances are that a molecule of quinine will run a molecule of cocaine a pretty close race in numbers when the census of atoms composing each one of molecules it taken.

The known number of atoms in a molecule of cocaine is 43. But one of these atoms is needed or entirely safe to life as an anaesthetic. The other 42 are not needed to produce anaesthesia and are dangerous to life when applied or injected into the body, and are fitted evidently for other work. The same may be said of the molecules of quinine in principle.

This chemico-therapeutic refinement in medicine is an improvement over the raw bark period when the cinchona bark was pulverized

and taken in powder form or steeped and taken as tea by the patient. In fact it is an improvement over the alkaloid preparations of the sulphate of quinine and the hydrochlorate of cocaine when the atom which kills the pneumococcus is isolated and used alone to do the work, thus avoiding all extraneous and deleterious substances and being also a saving in drugs. When the atoms in each molecule are named and placed in the order of their function, the net refinement will be to name, place and learn the specific use of each electron in each atom. There are about 1000 electrons in one hydrogen atom. By the time this is all done, found out, medicine will be a science. The reader may think that these remarks are made in a "jocular vein", but the writer and reader should both laugh now or they might be like the Hibernian who thought it would be so funny and laughed heartily before he got over the fence and and took a pawing, bellowing bull by the horns to rub the bull's nose in the dirt. By one yank the bull threw Pat up in the air and over the fence. When Pat came to, but yet dazed, he said, "Be Jabbors it's a good thing I had me laff furst."

Moral: If inclined to laugh at the prophecy of future scientific medicine do it now or meet the fate of the Hibernian.

—R—

## SOCIETIES

### Stafford County Society

Society met in St. John at 3:00 p. m. Members present W. L. Butler, W. S. Crouch, T. W. Scott, Stafford; M. M. Hart, Macksville; C. S. Adams, J. C. Ulrey, J. T. Scott, St. John.

Dr. M. M. Hart read a paper on Serums, Bacterins and Antitoxins. He discussed their uses from a therapeutic and prophylactic stand point, also the dangers that sometimes accompany their use. He confirmed his dissection of bacterial vaccines to stock vaccines and reported a case of hemoptysis in which he used horse serum once a month for three months which stopped the hemorrhage promptly with no recurrence after ten years. The society adjourned to meet in St. John the

second Wednesday in May at which meeting J. T. Scott will read a paper on "The Body's Immunizing Mechanism".

J. T. Scott, Sec'y.

### Joint Meeting

The Component Medical Societies of the Ninth and Tenth Councilor Districts met in a joint meeting at Colby, Kansas, Wednesday, April 19th, 1922.

The following program was given:

"Facial Expression and It's Physiology."

Dr. A. A. Allen, Colby.

"Carcinoma of the Stomach." Dr. Alfred O'Donnell, Ellsworth.

"Some Fractures and Their Treatment." (Illustrated by lantern slides). Dr. C. D. Blake, Hays.

"Diphtheria and Small Pox," (illustrated by Moving Pictures), Dr. Frank G. Pedley, Topeka, Epidemiologist, State Board of Health.

"Public Health Work." Dr. H. C. Capps, Hays; County Health officer, Ellis, county.

"Case Report—Encephalitis Lethargica." Dr. Karl Menninger, Topeka.

At 6:00 p. m., the visiting physicians were banqueted by Drs. Allen, Lewis and Eddy of Colby at Opel Hotel.

H. E. Friesen, St. Francis and Dr. Seth A. Brainard of Kirwin were elected members of the Decatur-Norton County Society.

C. S. Kenney,

Acting Councilor 9th. Dist.

D. R. Stoner,

Councilor 10th District.

### Miami County Society

The regular monthly meeting of the Miami County Medical Society was held Friday evening, March 31, at the State Hospital, Osawatimie, Kansas. On account of the inclement weather and bad roads a full attendance was not present. Dr. F. A. Carmichael called the meeting to order and had full charge of the proceedings. Dr. Clinton K. Smith of the Kansas City Urological Society, Kansas City, Mo., read a most interesting paper on "Cystitis: A Symptom or a Dis-

case." Dr. A. G. Dumas, State Hospital, Osawatimie, read a paper on "Hexamethylenamine, Its Use and Misuse." An interesting discussion followed the reading of both papers, which was highly instructive. The President made an appeal for a full attendance at the next meeting April 28th, as at this time the election of officers which has been postponed will take place as well as a selection of delegates to attend the State Society meeting.

A. G. Dumas, Sec'y.

### An Emergency Remedy

When the heart fails suddenly, as in shock, collapse, or anaphylaxis, the physician stands in need of a heart tonic that will act at once and that can be administered hypodermically. There is probably nothing in the whole materia medica that will serve him so well in such an emergency as Adrenalin (P. D. & Co.)

Of almost equal urgency is the condition of the asthmatic patient when the attack comes on; and the rapidity with which Adrenalin acts in these cases has made it indispensable throughout the medical world.

Persistent gastric hemorrhage makes the same sort of demand upon the physician; and here too Adrenalin, acting directly on the neurovascular tissues, stanches the bleeding almost instantly. In other forms of hemorrhage it is often useful also.

Adrenalin, we are told, is accurately standardized on animals, its effect upon the blood-vessels being demonstrated by the administration of as small an amount as 1-6000 grain.

Adrenalin is a Parke-Davis product, having been introduced to the medical profession by that house in 1901.

### Hereditary Hypertension and Arteriosclerosis

It has long been felt that a close relationship exists between arteriosclerosis, chronic nephritis and certain degenerative changes in the heart, the terms "cardiorenal" and "cardiovascular renal" indicating the association. At the present time there is a tendency in medical thought still more completely to unify



this group of conditions, and to regard them as the late stage of an essential hypertension which began many years before, the word "essential" being a cloak for our dense ignorance of the causes of elevated blood pressure. The case histories reported by Joseph R. Wiseman, Syracuse, N. Y. (*Journal A. M. A.*, Feb. 11, 1922), of a brother and two sisters illustrate many features of this. Their father died of apoplexy at 58. Their mother of pneumonia at 74. Two other sisters are living and presumably well, whom I have not had the opportunity of examining. One sister died at 17 of organic heart disease following scarlet fever. The brother was 50. He had hypertensive cardiovascular disease; the heart and kidneys functioned well, but there was apparently generalized arteriosclerosis with marked affection of the cerebral vessels terminating in apoplexy. One sister, aged 57, presented no demonstrable evidence of arteriosclerosis save in the retina and aorta. Kidney function was fairly good, but the heart showed signs of early functional impairment. Hypertension had been observed for five years. The second sister, aged 44, presented hypertensive cardiovascular disease with good compensation.

—————R—————

### Research in Chemistry as Related to Medicine

In all things biologic, whether physiologic or pathologic, Russell H. Chittenden, New Haven, Conn. (*Journal A. M. A.*, April 29, 1922), states the ultimate solution rests on some physical or chemical factor; the ultimate explanation in most cases involves some chemical reaction. The recognition of this fact has led to increasing interest in biochemistry, and the development of this branch of science has gone forward by leaps and bounds. The applications of biochemistry are so far-reaching, so broadly extended, that there seems almost no limit to the possibilities it offers in furnishing aid in the prevention and cure of disease. No branch of applied science is more promising to suffering humanity than biochemistry; it opens the gateway of understanding to many obscure phenomena which puzzle both physiologists

and practitioners of medicine, and it promises the final solution of many of the great problems of biology and medicine. Chemistry offers aid in the understanding of normal and abnormal function as well as in treatment, and can often aid in prevention as well. The people of America should be alive to the possibilities that lie before them in this unprecedented development of chemistry with its promise for a better understanding of the laws of health and a better understanding of possible methods of prevention and cure when disease threatens. Given the proper encouragement and adequate support, research in chemistry can be so developed that the eyes of the scientific world will turn to this country for that advance in knowledge which formerly was looked for only on the other side of the Atlantic. Just what kind of encouragement is needed? Just what kind of support should be given to bring about this ideal condition? First of all, the right type of man should be encouraged to enter research work, not as a side issue, something to be played with in spare moments, but as a life work. Too many of the bright young minds of today are deterred from entering on a career which their natural aptitude and their training fit them for simply because they see no assurance of either a livelihood or a position which carries standing in the community. There must be adequate facilities in library and laboratory for meeting the needs that will arise in connection with almost any piece of research. Cooperation is certainly called for in many cases in which chemists, physiologists, bacteriologists, clinicians and hospital interns can work together with a common end in view. Many biologic and medical problems call for the combined wisdom of different minds, endowed by training and experience in their own particular fields, with broad judgment, which should enable them to contribute much toward the solution of a given inquiry. The day of systematic research is here, and the opportunities it offers should not be neglected. Large problems must be attacked by large methods. The isolated worker, with his limitations of time and facilities, obviously cannot accomplish the results desired. Co-

operation is the key to the difficulty. Many minds, each with its own special equipment and the varied facilities needed, are an absolute requirement for success. When this conception of research is put into practice on the scale required, advance is sure to come.

—R—

### Treatment of Fractures of Metacarpals and Phalanges of Fingers

The method presented by Ralph H. Wheeler, Chicago (*Journal A. M. A.*, Feb. 11, 1922), is said to be most applicable to fractures of the proximal phalanges and metacarpals, but can be used successfully in fractures of the middle phalanges. The secret of extension of the fingers lies in something that can be attached to the skin which will not slip and at the same time not restrict circulation to any material extent. This can be accomplished with a strip of gauze bandage and a glue made of celluloid and acetone. To make this glue, enough celluloid (Wheeler uses scraps obtained from automobile top manufacturers) is dissolved in acetone to make a solution of the consistency of mucilage. The most satisfactory method is to glue a loop of gauze to each finger on which extension is desired, and while the glue is drying out a plaster-of-Paris cast on the forearm, extending from the fold of the wrist to within about 2 inches (5 cm.) of the fold of the elbow. In this cast a wire loop, which is so adjusted as to project 2 or 3 inches (from 5 to 7.5 cm.) beyond the finger or fingers to be extended, is incorporated. In this method counterextension is made against the bulge of the muscles of the forearm; hence, in putting on the cast, but little padding should be used, otherwise when extension is applied it will crowd up. After the plaster hardens, the wire loop is adjusted to the line in which extension is desired and then a piece of rubber tubing is passed through the gauze loop attached to the finger and over the wire loop, and made fast with as much strain as is desired. Experience has taught that care must be observed not to put too much strain on, because blistering of the skin will follow and the gauze loop will loosen. In the few instances in which this

has occurred, another loop has been applied, using the palmar and dorsal surfaces when the first loop was attached to the sides and vice versa, and extension continued without interruption. The method is particularly adapted to compound fractures because it allows free access to wounds.

—R—

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for April 1, 1922.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who, having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post Office Address
Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society .....	Topeka, Kansas
Editor—W. E. McVey .....	Topeka, Kansas
Managing Editor—None.	
Business Manager—None.	

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, Dr. C. S. Kenney, Norton, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. Geo. M. Gray, Kansas City, Kansas, Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the



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said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVey, Editor.

Sworn to and subscribed before me this 13th day of April, 1922.

(Seal) J. M. STARK,  
Notary Public.  
(My commission expires May 13, 1922.)

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# THE JOURNAL

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### Atresia of Vagina

L. F. BARNEY, M.D., Kansas City

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

All of us remember that when we were students in medical college that the instructors frequently would warn us of certain consequences which might result following certain conditions, especially in our obstetrical work. For a number of years, perhaps, our anxiety would run high and with fear and trepidation we handled those certain cases but never saw the results of which we had been warned, and then for a number of years more, when we had developed more courage, we would rather look forward hoping that we might have the experiences we had been taught to look for, but not finding them we would get to harboring a feeling that that which the instructors had told us was more or less of a myth and we would begin to wonder where they "got that stuff"; but if we kept practicing long enough and our fields of labor were broad enough, sooner or later we would have the opportunity of seeing those conditions and complications.

Such has been my experience, and only recently I saw one of these results, and today I am going to tell you about it, for I wonder how many of you have seen similar conditions. Furthermore it has many problems which we might profitably discuss.

#### THE CASE

In February of this year during the recent epidemic of influenza a woman was assigned to my service at St. Margaret's Hospital who gave the following history. Age 24, colored, married, and the mother of one child that died at birth, September, 1918. Previous to the pregnancy the history was uneventful, her menstruation had been regular, of the thirty-day type, flowing four to five days normally without pain. Her pregnancy likewise was uneventful but her labor was long, hard and tedious, she being in constant hard labor for

three days at home—the attending physician attempting to use forceps but was unsuccessful. She was then transferred to a hospital where instruments were applied by another physician and a dead baby delivered. Some stitches, she says, were taken, but she does not know how many or where. The puerperium she says was without complication there being no fever, hemorrhage, chills, etc. However, she does admit that she remained at the hospital for one month. Before being confined her husband had gone to war and she says she has never seen him since. After returning home she had her usual good health until six months before entering the hospital, nearly two years after her delivery, when she complained of headaches. She had gained weight, becoming heavier than ever before. Her physician gave her some medicine and the headaches disappeared in about three months but were followed by cramping heavy pains in the pelvis which gradually increased, and the last three weeks before I saw her she was confined to the bed, during which time she lost some weight. On account of these pains and the fact that she had never menstruated since the delivery of the child, she said she went back to her physician and told him he had sewed her up too tight.

Physical examination revealed a well nourished woman, nothing abnormal being found until a vaginal examination was made. This showed no urethral or excessive vaginal discharge and the perineum was intact. Upon making a digital examination, one inch above the introitus a firm barrier was met which was oblique being about one inch higher on the right side. No cervix or uterus could be outlined either vaginally or thru the rectum. Bimanual examination likewise gave no positive information in regard to these organs. A few days later an anesthetic was given and hoping against hope we thought possibly we might find a line of cleavage and break thru it, but this proved impossible, and there be-

ing no landmarks which were dependable we were afraid to make an incision for fear we might open either the bladder or rectum and thus further complicate the situation, so a supra-pubic laparotomy was made. The tubes and ovaries were found normal but the uterus was the size but not the shape of a three months' pregnancy, being elongated out of proportion to its transverse and anterior-posterior diameter. It felt boggy, as though it contained fluid, and the cervix and vaginal wall could not be differentiated.

At this point one of the consultants felt sure that with my hand as a guide he could break through with his fingers into the filled uterine and vaginal cavity. However, upon attempting it he gave it up, and a partial hysterectomy was made. Upon opening the endometrium about six ounces of thick dark chocolate colored fluid was evacuated and there was a cavity the length of the index finger extending toward the vagina. An assistant inserted his fingers in the vagina and with mine in the utero-vaginal cavity we could feel that our fingers were separated about one inch by the intervening tissue. Then with a boring motion we were able to tear through to one another. This opening was enlarged and an iodoform gauze pack was inserted from above down into the vagina and the stump of the cervix or body of the uterus, we could not tell which, was sutured over. A wick drain was inserted and the abdominal wall closed.

After we had broken through the vagina, two problems presented, viz: First. How were we to prevent the adhesions recurring for we had raw surfaces extending around the entire circumference of the upper two-thirds of the vaginal wall? We depended upon packing tightly the vagina with vaselined gauze for some four weeks and were at least partially successful, for at our last examination, April 17th, two and a half months after the operation, we could insert an adult vaginal speculum in the vagina and uterine dressing forceps one and one-half inches into the uterus, and there was very little raw surface. However, there was some shortening of the vagina and some contraction of the left side of the vaginal wall and without being able to

keep it thoroughly dilated we cannot at this time say how much further contraction will occur. Transplantation of epithelial tissue from either the labia or the thigh has been recommended, but the success of it in this case appeared extremely doubtful to us.

The second problem was, would it have been better to have removed the ovaries? This is something that we are always very reticent about doing where there is any healthy ovarian tissue on account of the nervous symptoms that generally follow. On the other hand, we did not know how much endometrium we had left and if the outlet closed again, which was very probable, would we not have the same condition recur that we had in the beginning?

With the exception of a broncho-pneumonia, which occurred immediately following the operation, and from which she recovered, she made a very satisfactory convalescence. The authorities say that the retained menstrual flow is very toxic and infective and we feared a peritonitis which fortunately did not occur, and the wound healed by first intention.

As to the broncho-pneumonia that developed, it sounds a warning of which we should all take heed. At the time I operated on her we were just starting through an epidemic of influenza, when patients would frequently go to bed at night feeling perfectly well and awaken with a heavy cold and be seriously ill. Anesthetics certainly are not good for these infections of the respiratory tract and I believe that during these epidemics we should refrain from doing any operations where an anesthetic is required if there is no urgent need for the operation. In this case we had had her in the hospital for several days and had noticed no signs of the "flu" or a cold, but next day after the operation she began aching all over, perspiring, coughing and expectorating and had fever which finally went to 104, and an area of consolidation occurred in both posterior lower lungs. Upon questioning her later we learned that the night before the operations she began sneezing, coughing and had a coryza, but did not tell us about it. She undoubtedly started with the "flu" that night.

The above case is one that Edgar would term



cicatricial stricture of the vagina, but Graves would call it atresia of the vagina. Edgar limits the term atresia to congenital closure, while Graves applies it to both congenital and acquired closure. Graves uses the word atresia to mean complete closure of a cavity and stenosis to partial or incomplete closure. The definition of atresia given in Dorland's dictionary is "Imperforation—absence or closure of a normal opening." Using this definition as a basis we will assume that Graves is correct and will discuss it from his standpoint.

Atresia of the genital tract is divided according to location into (1) Hymenatresia, that is, closure of the hymen or introitus. (2) Gynatresia, closure of the vaginal wall above the introitus, and (3) Endometresia, closure of the uterine cavity or endometrium.

As stated above, atresia is either congenital or acquired. As will be shown later, the congenital atresia, with the one exception, viz: hymenatresia of the new born, is symptomless and will not be discussed at this time.

*Etiology:* The cause of acquired atresia is always inflammatory and all cases presupposes an ulcerative vaginitis. According to the age of the patient they may be classified into the following four classes: (a) Hymenatresia of the new born; the cause of this has not been definitely settled as to whether it is congenital or a prenatal infection. Apparently the force of the argument is with the latter. (b) Atresia of childhood—of all causes at all ages the gonococcus is a very potent factor, but in childhood it is the most common cause. The vaginal mucous membrane in young children is very delicate and a slight inflammation may produce an ulceration which later becomes adherent. In very young children where the mucous membrane is even more delicate the infection may result from irritating urinary and fecal discharges. Another cause is traumatism, such as lighting astride of a picket fence, etc. Veit says that gonorrhœa may produce so little symptoms in childhood that it may never be recognized until the atresia has occurred.

(c) In adult life one of the most common causes is the traumatism of childbirth, especially instrumental delivery as happened in

my case. As a result of pressure and laceration more or less of the vaginal mucous membrane is denuded and as the parts lay in juxtaposition they become adherent. Occasionally the entire cervix is pulled off and this leaves extensive raw surfaces to unite or there are deep lacerations which contract when they heal and produce stenosis.

(d) In the aged, aside from the causes mentioned above, senile vaginitis is a potent factor.

*Symptoms and Results:* Aside from dystocia, the symptoms are those of retained secretions. If the closure is low down near the hymen the secretions first distend the vagina and we have what is termed a hematocolpos; later the uterus is stretched and filled, forming a hematometra, and if further distention occurs the tubes become filled and distended and we have a hemato salpinx.

We stated above that congenital atresia was symptomless. This is due to the fact that embryologically an imperfectly developed vagina, except double formation, is impossible without a normal uterus, and where there is an absent vagina there is not a normal uterus to menstruate. In Graves Gynecology we find the following statement: "A study of the embryology of the genital system proves that with a normally developed uterus there can be no defect of the vagina, excluding the cases of double formation. When there is absence of the vagina the upper portions of the genital tract are necessarily rudimentary and do not functionate. Congenital absence of the vagina is therefore symptomless." I am aware that some of the authorities do not agree with this statement. Wm. E. Studdiford, in Johnson's Operative Therapeutics, makes this statement: "Congenital atresia of the vagina is not as a rule diagnosticated until the menstrual function has been established. The symptoms develop as a result of the retention of the secretion, or the non-appearance of the flow at the time of or after the age of puberty."

In volume five, Keen's Surgery, is this statement: "Complete absence of the vagina is uncommon, and is usually associated with an absence of the uterus and fallopian tubes, and occasionally of the ovaries, though the

absence of the vagina is not always associated with the absence of the latter organs."

In the hymenatresia of the new born there is a bloody secretion from the uterus, which is supposed to be the result of placental activity, which pushes down and outward against the hymen, producing a round protruding bluish tumor from between the labia. Aside from the tumor there is fever and other toxic symptoms and if it is not drained at once death will soon ensue.

In childhood up to puberty there are no uterine secretions and no symptoms, but at this time the uterus becomes active and we have the *molima*, the *malaise* and *lassitude*, heaviness in the pelvis, and cramping pains which occur each month without the show and which get worse and become more constant until frequently a mass, the retained menstrual flow, is felt in the pelvis. Occasionally, it is said, the mass is found before there are any other symptom except that the patient has never menstruated.

In the adult the symptoms are usually those as cited in the case reported. If there be only a stenosis there may be only a foul leukorrhoea and an irritating vaginitis the result of the improperly drained secretions which become stagnant and chemically altered.

In old age the symptoms are those of the stenosis of adults and in either the senile or the adult is a very common cause of pruritus and kraurosis.

*Treatment:* This is purely surgical and like most plastic work there is no standard operation, but the operation performed should be the one most suitable for the individual case and depends a great deal upon the location and form of the obstruction.

If the obstruction be only a thin membrane the cure is easy. Under strict asepsis, for as stated above, the retained secretions are very toxic, excise the membrane, evacuate the vagina and uterus and suture the raw edges together with catgut. Graves condemns the practice of making a crucial incision of the membrane, for it does not give free drainage and sepsis follows, which may be either fatal or lead to a chronic vaginitis with a continuous foul leukorrhoea as a result of the par-

tially retained secretions and later the incised wounds may contract and close.

Where broad surfaces of the vagina have grown together, as in my case, the separation of the walls leaves them without epithelial covering and unless some method is adopted to cover these raw surfaces they reunite and the patient is again in the same condition she was before being operated upon. Since doing my case I have learned of a similar case in Kansas City, in which this had happened. To overcome this several methods, or, as Binnie would say, several dodges have been used. One method has been to take flaps of skin from the labia or thighs and suture them over the raw surfaces in the vagina. Another (Carl Beck) has transplanted skin by making a transverse supra-pubic laparotomy and taking flaps of skin from the inner side of the thigh and drawing it down through the laparotomy wound and suturing it in the vagina. Both of these operations have the objection of lining the vagina with skin which has more or less hair and also a high percentage of failures.

Pfannenstiel's Operation (Johnson's *Therapeutics*) seems to be the most satisfactory operation for a limited number of cases. He loosened up the attachments of the cervix from above and drew it down and sutured it to the raw edge of the vagina. The vagina afterwards lengthened and the uterus drew up.

Baldwin's operation constructs a vagina by transplanting a loop of intestine, generally the ileum or sigmoid, into the newly constructed vagina. In one case C. W. Ward (*Year Book Gynecology 1916*) used the cecum.

In many cases, as in mine, where the cervix as well as the vaginal wall is involved, the safest and probably the best thing to do is to do a hysterectomy.

Where there is a congenital absence of the vagina, with an absence of uterus and ovaries, the results seldom justify the means in attempting to construct an artificial vagina. In discussing this we find the following in Johnson's *Therapeutics*, volume five: "Where there is an entire absence of the vagina with absence of the uterus or ovaries, or where these organs



are merely rudimentary and there is no evidence of a menstrual molimen, another question comes up for consideration. In some cases this condition is one of cryptorchidism with feminine physical characteristics and any operative procedure is inadvisable. In other cases, without discussing the ethical side of the question, it is debatable whether the surgeon is justified in attempting to construct a vagina simply for the purpose of sexual intercourse. The older plans of treatment for this condition by dissection of the tissues between the bladder and the rectum and attempting to construct a vagina by various methods of tissue implantation or transplantation were, as a rule unsuccessful, as the canal contracted within a short time. The operations were associated with greater risk than the ultimate results warranted. The most successful method so far devised for the construction of a new vagina is that devised by Baldwin, by which the canal is constructed from a segment of the intestine. The operation is of necessity a severe one and must have for its justification unusual circumstances."

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### The Trend of Modern Diagnosis

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The diagnosis of disease is the foundation of the medical profession. Without diagnosis, methods of treatment, be they medical, surgical or prophylactic, would fall like a house of cards.

The history of the diagnosis of disease is closely linked with the history of civilization. In the dawn of history when men gathered together in tribes and began to communicate by means of spoken language, some crude methods of treatment were learned from simple personal experience. Evidence of this has been shown in splinted limbs and trephined skulls that have been found in prehistoric caves.

From the records of the ancient Egyptians, we know that they employed inspection and palpation and there is some ground for the belief that they also employed auscultation. Records show that there were physicians in

Babylon about 2200 B.C. The writings of Hippocrates, 460 B.C., marked a new epoch in medical history and guided the thought of physicians for centuries to come. Galen, nearly six hundred years later, added to this knowledge at the time when civilization, with the impulse of Christianity, was spreading through Europe. Of his numerous writings, one on parts of the body affected, gives excellent advice to the diagnostician. He says, "In the first place, the part should be carefully examined in order that we may ascertain whether it presents any signs of special value as indicating the nature of the disease. In the next place, it is important in such an examination to know beforehand what are the particular signs which belong to each of the diseases that may affect the part or organ in question and also whether these signs may vary according to the particular organ involved."

Advancement in the diagnosis of disease was hampered by a woeful lack of knowledge of anatomy and physiology, and by superstitions and erroneous theories. Except for a slowly increasing knowledge of drugs, there was practically no advancement in the science of medicine through the Dark Ages up to the period of the Renaissance. Mondino's work on dissecting, early in the fourteenth century, the first recorded for 1,500 years, was followed by the anatomic and physiologic work of Vesalius, Harvey, and others in the sixteenth and seventeenth centuries. This and the use of the microscope in the seventeenth century greatly extended medical knowledge and with it, diagnosis.

Morgagni, called the father of pathologic anatomy, first brought records of postmortem findings into correlation with clinical findings on a large scale. From that time, the advance in methods of diagnosis was steady. Clinical instruction, the clinical thermometer, methods of counting the pulse rate, and the invention of the stethoscope by Laennec gave impetus to physical examination. The researches of Virchow in pathology, of Pasteur, and Koch in bacteriology brought us to the threshold of modern medicine. The discovery of the x-ray in 1893, and the brilliant work in physiologic chemistry in the past two de-

caes have given us many new aides in diagnosis.

As the methods by which diagnoses could be made were increased in number and in accuracy, the need of specialization was felt. The average physician could not keep himself in touch with all the new scientific technic and knowledge necessary to carry on laboratory work in addition to his general practice. Men began to devote their entire time to surgery or to certain specialties such as the eye, ear, nose and throat, chest, stomach, skin, and so forth. The development of these specialties filled a real need in medical practice by giving the patient the benefit of expert advice and by giving the physician the benefit of the opinions of men devoting all of their time to the study of special fields. With the great improvement in diagnostic methods of physiologic chemistry, the diagnostician has necessarily had to depend a great deal on the reports he received from the laboratory.

Between twenty and thirty years ago, a new era in diagnosis slowly began. Groups were formed of men, each with a specialty, who worked together in diagnosing and treating disease. Physicians often have under their care patients who need the expert advice and opinion of specialists. Group medicine tends to bring all of these examinations in co-ordination with each other so that they may be made more easily and with less expense to the patient.

Group medicine is not practiced without its difficulties. Probably the greatest of these lies in the obstacles which arise in holding together a group of physicians who will co-ordinate their work harmoniously. The physician, probably more than any other professional man, must depend on his personal interpretation of the evidence of the disease which the patient presents. He can rarely make a decision by the "rule of thumb" method. The self-confidence which he must develop may be termed pride of personal opinion, and examples of enmity which this may cause between competitors are familiar to all of us. In group medicine, the physician's pride of opinion, while necessary as a part of the enthusiasm and interest in his work, must be held in leash in order that his

mind may be open to the advice and opinion of those associated with him. Some unusual interest in the work, or the control by one man or a body of men is essential in holding a large group of men together.

A tendency in group medicine as well as in the large hospitals is for the physician who examines the patient to lose sight of the personal element in the diagnosis and care of the patient. The close personal friendship which has existed for many years between the general practitioner and his patients must necessarily be lost. The tendency to diagnose disease in an impersonal manner becomes increasingly strong as methods of diagnosis become more mechanical and as the volume of work performed by one person or a group of persons increases. The physician must be on guard constantly lest he consider the patient a case and not a sick person who has come for relief. Each member of a group of successful physicians as well as the general practitioner must have a sense of personal sympathy for the individual patient.

It is very important to guard against the trend toward over-specialization. A physician who devotes all of his time to one specialty must, in the development of that specialty, center his mind on the questions that pertain particularly to it. His field becomes narrowed and while he is able to center the immediate object under the spot-light of his intensive thought, the surrounding area will be more or less hazy and dim. Specialists have made great strides in recent years toward the diagnosis and relief of ailments previously unrelieved. Yet the work of the various specialties must be coordinated for the patient by the clinician with wide experience in medical diagnosis.

The foundation of diagnosis rests on the history of the case and on physical examination. Without these, diagnosis fails. The necessity for a careful plan for the student to follow in obtaining the history of the patient's illness has long been recognized in medical teaching. This, as we know, demands the family and personal history, the history of previous illnesses, and the description of the present complaint. We are all familiar with



the necessary details, but how well do we follow them?

In hospital practice and more recently in office practice, it has become customary to record the facts obtained. To be of value the history must contain all the essential facts, emphasized according to their importance; the symptoms should be recorded in their chronological relation to each other. The history must be concise. Verbosity in history writing leads to errors in diagnosis, by confusing the mind so that the main points of the complaint may be overlooked.

The physician in taking the history, should not fail to appreciate the patient's point of view; this is of extreme importance. If at the beginning the patient's confidence is gained, the true facts may be much more easily and accurately obtained. A patient who presents himself with a multiplicity of complaints and is very glib and anxious to tell his symptoms, is apt to be labeled a "neuro." We are prone to discount a great many of his statements, and this may be necessary to some extent for their proper evaluation, but care must be taken not to close our minds to the illness which may underlie the smoke-screen of words.

The importance of a history in case of accident, or in case of acute illness may not be great, but its value in chronic illness cannot be over-estimated. A good family history a history of previous accidents and acute illness are of distinct value, and a history sheet should have a printed outline to be followed so that these points will not be overlooked. It takes tact and persistence and a broad general knowledge of medicine in many instances to elicit the points in the general history which may lead to the diagnosis.

#### IMPORTANT POINTS IN HISTORY TAKING.

The present complaint or complaints, the past history leading up to the present complaints, the relative value of the statements presented must all be grouped in the written history so that the important facts will not be obscured by the unimportant facts. A peptic ulcer, for example, may be diagnosed in most cases by a history, carefully taken, in which the type and location of pain, periodicity, time relationship to food ingestion, quanti-

tative or qualitative distress, duration, method of obtaining ease, and seasonal incidence are noted. Graham, in 1917, wrote, "He who can keep in mind the multiplicity of pathologic conditions and group the symptoms as expressed in complaints of the stomach may easily diagnose 80 per cent of the cases of ulcer of the stomach and about 85 per cent of cases of gallstone disease."

Given a case in which there is a history of attacks of upper abdominal pain and no objective findings, the history is the only or main evidence to support the diagnosis. Often by this means alone, one may be led to diagnose biliary colic, disease of the pancreas, ulcer of the stomach or duodenum, cardio-spasm, angina, crises of tabes dorsalis, abdominal migraine, and other abdominal disorders. Plummer and Vinson state that of a group of 301 patients with cardio-spasm at the Mayo Clinic, 142 had epigastric pain, 77 of whom considered pain to be the chief symptom. Many of these had colic, simulating biliary colic, a few had had operations on the gall-bladder, stomach or appendix without relief of symptoms. Well trained men who have served internships in good hospitals will write a readable and consecutive history, which may yet lack points essential to a correct diagnosis. This is due either to failure to obtain a proper history from the patient, or to a lack of knowledge concerning the possible diseases that may cause the symptoms.

#### PHYSICAL EXAMINATION.

Diagnosis by methods of examination have developed far beyond the dreams of the careful diagnostician of the nineteenth century, who depended largely on what he could see, feel, measure, or hear. He became a good bedside observer, as evidenced by the unsurpassed descriptions of diseases by such men as Laennec, Graves, Bright, Corrigan, and others, among them the well-known Osler of our own time. The microscope and the increased knowledge of the bacterial cause of disease with the improvement of cultural and staining methods, and the study of cellular histology and pathology have increased our knowledge of the causes of disease. The roentgen-ray, examination of the contents of

the stomach and bowel, of the urine, blood, and spinal fluid, and estimations of the basal metabolic rate are now used as aids to diagnosis. A diagnostician who does not have these aids at hand, or who cannot interpret and correlate the reports from competent specialists, must in many instances be handicapped in reaching the proper conclusion. Yet the ease with which we obtain such aids to diagnosis tends to make us lax in the fundamental physical methods of examination.

In 1916, Nuzum reviewed 1,000 cases of tabes dorsalis, and found that 8.7 per cent of the patients had been operated on under a mistaken diagnosis, probably because of visceral crises. A careful physical examination should have cleared up the condition in most of these cases. The pupillary changes alone are a strong feature in the diagnosis of a very high percentage of tabetic patients.

#### CONCLUSIONS.

The trend toward specialization, toward narrowing our field of vision, toward short-cutting to our diagnosis by laboratory help is growing in the medical profession. We should make use of every possible factor to aid us in reaching a diagnosis, but we should not lose our forefathers' keen power of observation of what we see and feel and hear. A well developed history and a careful routine physical examination should be the basis of all diagnoses and should carry the physician far toward the solution of his problem. As Nicoll has so aptly stated, "The unfortunate individual who by reason of the obscurity of his symptoms is sent from one specialist to another often looks in vain for the only one who can interpret, weigh the value of, and fit in place the seemingly unrelated parts of the puzzle, the well-equipped, broad-visioned general practitioner; the humanizer, as someone has fittingly expressed it, of medical practice. With his disappearance, except in some of our rural communities, disappears also that most cherished, often sacred relationship between the doctor and patient, the personal side of medicine."

## BELL MEMORIAL HOSPITAL CLINICS

### Clinic of Dr. Logan Clendening

Gastro-Intestinal Out-patient Clinic.

#### AN UNJUSTLY NEGLECTED INSTRUMENT—THE PROCTO-SIGMOIDOSCOPE.

The proctoscope or sigmoidoscope is a part of the modern physician's armamentarium which is very valuable but comparatively neglected. It is usually considered to be of value only to the specialist in rectal diseases. But as a matter of fact in the diagnosis of obscure abdominal complaints, and in frank intestinal disease such as diarrhoea, blood in the stools and in determining the varieties of constipation it is of daily indispensable use to the general internist and practitioner. Considering the paucity of information about its use it may be permitted to go over in somewhat elementary detail the technique of sigmoidoscopy and some of its uses in diagnosis.

#### I. *Technique of Sigmoidoscopy:*

1. Selection of instrument: In the accompanying illustration the arrangement of the table for sigmoidoscopy is shown. The instrument I use is a simple tube with the electric lamp in the inner end. Some instruments are made with the light in the eye piece, but I think the other arrangement gives better illumination. I should like to draw attention to the smaller calibre of the two sigmoidoscopes A and D compared to the others. These were especially made for me, smaller than the instrument usually sold, and can be introduced even into a very sensitive rectum with practically no discomfort. I do not use any bag for distending the bowel forcibly with air, because the proper introduction of the sigmoidoscope allows enough air to enter the bowel to balloon it quite satisfactorily.

2. Position of patient: The patient is always put in the knee-chest position if possible—that is if not too weak and sick. The sigmoidoscope can be introduced, however, with the patient on the side.

3. Introduction of sigmoidoscope: The physician wears a finger cot anointed with a lubricant, which is also smeared over the tip and outside of the instrument. With the patient in the knee-chest position and the ob-



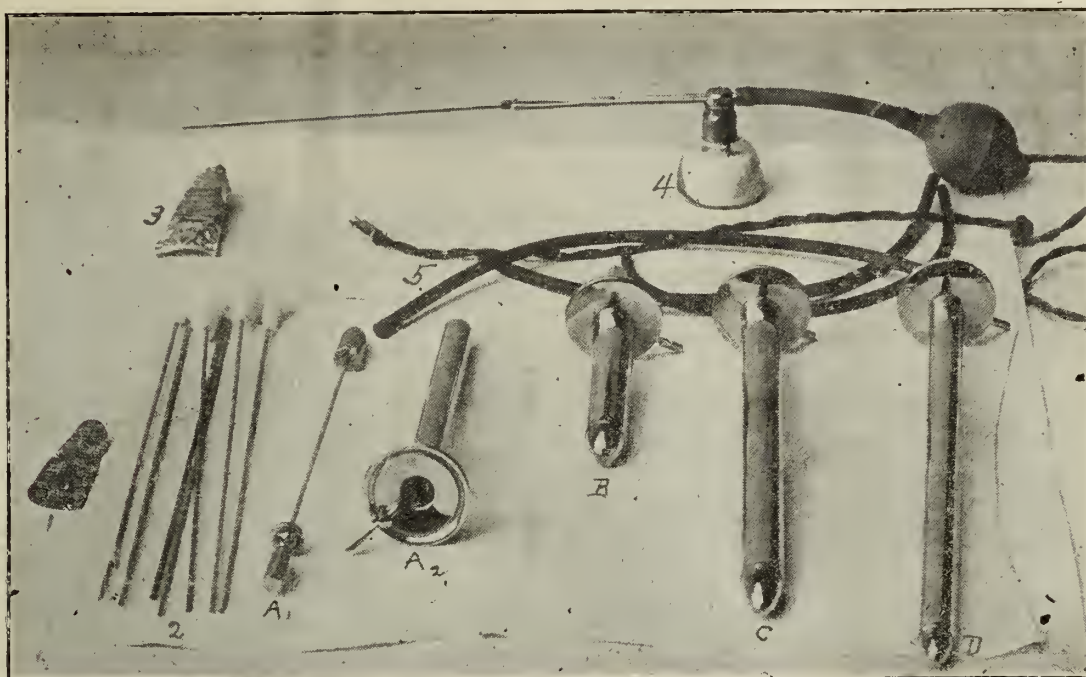


Figure I.  
Table Arrangement for Sigmoidoscopy.

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| <p>A. Small size (<math>2\frac{1}{2}</math> inches in circumference), 8 inch long proctoscope.<br/>A-1. Obturator.<br/>A-2. Speculum portion.</p> <p>B. Proctoscope—6 inch long—3 inch circumference.</p> <p>C. Large size sigmoidoscope—10 inch long—3 inch circumference.</p> | <p>D. Sigmoidoscope—12 inch long—<math>2\frac{1}{2}</math> inch circumference.</p> <p>1. Finger cot.<br/>2. Applicators.<br/>3. Lubricant.<br/>4. Powder blower with calomel and bismuth.<br/>5. Catheters and Battery cord.</p> |
|---|--|

turator inside the sigmoidoscope, it is gently pushed past the sphincter and for an inch or two into the rectum. This should cause no pain; in fact, the whole procedure should be quite painless. After it has been introduced up to the place where slight resistance is offered by the recto-sigmoid juncture, the obturator is removed and the battery turned on so that the operator guiding the instrument by sight and allowing the bowel to distend by air can gently introduce it around the sigmoid curves further and further up the bowel until every inch of the rectum, sigmoid and part of the descending colon can be thoroughly inspected.

## II. *Appearance of the normal recto-sigmoid canal:*

It is seldom necessary to have the patient empty the bowels deliberately by the use of an enema. I never order a cathartic the night

before. If on introduction of the instrument the sigmoid is seen to be full of feces, it is removed and evacuation permitted before re-introduction. Usually there are only a few fecal flakes to be seen hanging to the walls of the gut, and these can be removed by the large applicators fitted with cotton swabs.

Starting from the anus we see the haemorrhoidal veins and the crypts of Morgagni, and ulcerations and other pathologic conditions around the anus. These can best be seen, however, at the end of the procedure as the instrument is being removed.

The color of normal rectal and sigmoid mucosa is a delicate clear pink; some small vessels can be seen but are usually the evidence of disease. A dark red color seen in the sigmoidoscope always indicates ulceration or carcinoma even if the disease cannot be distinctly focused.

The recto-sigmoid juncture is marked by a

distinct fold of mucous membrane seen at the operators right. The first curve of the sigmoid is to the right. The sigmoid and colonic mucosa is lighter than that of the rectum.

### III. *Pathologic condition seen with the procto-sigmoidoscope.*

1. Cancer of the rectum and sigmoid: This may be annular, ulcerative, massive or pedunculated. It always appears as a darker fungus-like mass, distinctly different from the normal mucosa. The differential diagnosis between cancer and benign growths is much more difficult than between a growth and the normal mucosa. It is possible to detect a growth with a sigmoidoscope long before any other method of examination gives positive signs. A case in point is that recently seen of an elderly gentleman who suddenly passed quite a quantity of blood by stool. This was his only symptom. He had had no disturbance of the bowels, either constipation or diarrhoea, and no pain or discomfort to indicate the site of the disease. A barium enema was returned with the report that there was no disease present that could be detected by this means. Sigmoidoscopy, however, showed about two inches above the recto-sigmoid juncture, a perfectly distinct small pedunculated, bleeding growth about the size of the end of the thumb; the mucosa above and below it were pink and the growth itself was sharply differentiated from the normal mucosa and strikingly distinct. On section it was seen to be a carcinoma. In no other way could its removal have been accomplished at so early a date.

2. Sarcoma of the bowel.

3. Ulceration, due to either chronic ulcerative colitis or amebic dysentery: The lesions of the former are usually larger and less numerous than those of the latter, they have a grey appearance around the edges with usually darker granulating surfaces in the center of the ulcer.

4. Syphilis of the rectum and sigmoid:

5. Diverticulosis of the sigmoid. A difficult diagnosis, and one likely to be full of disappointments.

6. Infection of the mucosa of the bowel with or without spasm. These are often due

to habitual use of enemas using an unsterilized enema tip or the habitual use of cathartics.

### IV. *Treatment by means of the sigmoidoscopes*

In proctitis, ulceration, etc., topical application of silver nitrate, phenol and other substances may be done by applications through the sigmoidoscope with the greatest exactness.

Soper has introduced two methods of treatment by the sigmoidoscope which I have found very useful and valuable. One is the application of calomel powder to the mucosa. It is introduced by a powder blower of the de Vilbiss type with a long tube (see illustration). The calomel is usually mixed with bismuth as it keeps better in this way. The powder coats the entire mucosa, and resembles frosting on a cake. It is antiseptic and soothing and is applicable to ulceration, inflammation and particularly the infection of the gut wall that accompanies the constipation due to prolonged use of cathartics and particularly enemata.

Another method Soper uses is the instillation of a 50 per cent solution of magnesium sulphate. This acts as it does in the duodenal mucosa as an anti-spasmodic. In cases of spastic constipation and allied conditions, it works like a charm. It is instilled by means of a catheter introduced into the sigmoid through the sigmoidoscope. The instrument is then withdrawn and the magnesium sulphate solution about 20 to 50 c. c., as a dose introduced by a syringe through the catheter. The patient is instructed to lie on the right side for half an hour before expelling the solution.

In cases of spasm of the sigmoid from any cause, this is a most effective method of treatment.

—————R—————

Phonotherapy consists in pushing the air out of the lungs. It encourages deep breathing. A large per cent of persons are shallow breathers. Shallow breathing favors lung trouble. Deep breathing should be practiced at least five minutes each day to keep lung health. It is as necessary as muscular exercise is to keep the other muscles normal.



# THE JOURNAL

of The

## Kansas Medical Society

W. E. McVEY, M.D. - - Editor

ASSOCIATE EDITORS—L. W. SHANNON, C. C. GODDARD, P. S. MITCHELL, O. P. DAVIS, G. A. BLASDEL, E. S. EDGERTON, E. G. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, W. F. FEE.

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LIST OF OFFICERS—Pres., M. L. Perry, Topeka State Hospital. Vice Presidents: J. R. Scott, Ottawa; E. E. Morrison, Great Bend; Leon Matassarin, Wichita. Secretary, J. F. Hassig, Kansas City. Treasurer, Geo. M. Gray, Kansas City.

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### Educating the People

To give the people such a general knowledge of medicine that they will appreciate the importance of methods for the prevention of disease, will appreciate the advantages of early diagnosis and treatment of beginning maladies, and know something of the nature of the diseases with which they are or are likely to be afflicted, but particularly that they will be less credulous in accepting the claims of uneducated and untrained dabblers at the healing art, is an undertaking of no small magnitude. One naturally wonders how it is to be accomplished and who is to accomplish it. That the medical profession, the nursing profession, and the Public Health Service are now rather promiscuously engaged in the undertaking does not assure us that it will be accomplished by either or all of them.

When the family physician was in vogue, his people entrusted the care of their health and their lives to one in whom they had confidence, whose word they accepted without question, whose advice they followed without reservation. They had no desire for intimate knowledge of disease processes and saw no occasion to investigate the relative value of different methods of treatment. There are still a few of these people in the world. There were many others not thus attached; some

with a little wisdom, more conceit and no confidence in anyone; some with no wisdom, no conceit and confidence in everyone; but all complaisant dupes to the ingenious tyro, smooth tongued charlatan, and patent medicine venders. There are still many of these people in the world. Men in the medical profession bewail the credulity of the people in things medical, but of all the people in the world the most credulous in things not medical are the men in the medical profession.

There are more sick automobiles than sick people and there is more money spent on sick automobiles than on sick people. Every doctor in Kansas owns an automobile. They have been driving automobiles on an average of at least five years, but they are just as credulous in selecting remedies or choosing a mechanic as are the people in choosing medical advisors.

Dr. M. owned an automobile that boiled water in its radiator after a few miles driven at moderate speed. He took it to a mechanic who told him the trouble was in the oil. The oil was changed but the water boiled as before. Another mechanic told him the ignition system needed adjusting. It was attended to but the water continued to boil. Another mechanic found a hose kinked. A new hose was applied, with no apparent effect on the overheating. Another mechanic advised the doctor that the carburetor needed new parts so that a proper fuel mixture could be supplied. The carburetor was overhauled, but the water in the radiator still boiled. Another mechanic thought the trouble was in the fan, adjusted the fan blades, but the effect was imperceptible. A doctor friend was sure that the water jacket had been filled up with precipitate from the water used. The water jacket was scraped and washed, but still the water boiled. It was at last discovered that the radiator was blocked with solder which had been left there by a mechanic some months before.

Dr. M. is much distressed over the credulity of the people who accept all sorts of absurd theories of disease and submit their ailments to unqualified practitioners, and he firmly believes they should be educated along medical lines so that they will know better. He does

not, however, think that it would be worth while for him to learn more about an automobile. He considers that his time and his thought may be more profitably used in his own line of work, and the care of his automobile entrusted to those who are supposed to know that kind of business. When his automobile gets sick again, he will probably not take it to the mechanic who discoursed so fluently on the subject of ignition systems, but to the man who discovered, probably by accident, what the trouble was the last time.

And people choose their doctors in much the same way and if they have had no experience themselves they try to benefit by that of their friends.

If Dr. M. knew where to find a mechanic that had spent a year studying the anatomy of automobiles, another years studying the functions of its different parts, two years investigating the causes and symptoms of its various disfunctions, the effects of wear and tear and the various kinds of injuries to which an automobile may be subjected, and then a year in repairing disabled automobiles, under a corps of competent instructors, he would put his automobile in that man's care with the utmost confidence. He would accept his opinion and advice without hesitating. Dr. M. knows that all the information he could secure from lectures, books and pamphlets, on automobiles, would be of little value to him. So with the people when their own ills are concerned. The little they can learn from the sources available about the human body and its afflictions is of little practical value.

Let us teach the people hygiene, of course. Let us teach them all we can about the prevention of disease. But also let us teach them how doctors of medicine are educated and trained, let us tell them, for instance, the history of diphtheria, the series of investigations leading up to the definite determining of its specific cause, and the processes by which an antitoxine was ultimately produced. Enough romance and human interest could be put into such stories to make them intensely interesting to the people, and nothing could more quickly establish confidence in the medical profession, by whom these things have

been accomplished. Let us spend our time in demonstrating what we know about human ills and in telling the people how we have dug up our facts and arrived at our conclusions. We will then have no time to waste in trying to convince them how little the substitutes for doctors really know, and we will have no need to do so.

—————R—————

### Proceedings of the Fifty-Sixth Annual Meeting of the Kansas Medical Society Held at Topeka May 3rd and 4th, 1922

#### MEETING OF THE COUNCIL

The Council of the Kansas Medical Society met in the Senate Chamber, State House, May 3rd, 1922 at 8:45 a. m. Those present were: The President, Dr. C. S. Kenney, Secretary Dr. J. F. Hassig and the following Councilors: Dr. C. C. Goddard, Dr. L. W. Shannon, Dr. P. S. Mitchell, Dr. O. P. Davis, Dr. G. A. Blasdel, Dr. E. S. Edgerton, Dr. E. G. Mason, Dr. H. N. Moses, Dr. J. A. Dillon and Dr. D. R. Stoner, and the Editor, Dr. W. E. McVey.

The Secretary read a letter from Dr. J. J. Curphey of Osage City remitting dues for 4 members of Osage County Medical Society which has been inactive and is now a part of Shawnee County Medical Society. The Secretary was instructed to return the dues to Dr. Curphey and advise him that their dues should come through Shawnee County Medical Society, and urge him to attend to it at once.

Secretary's expense account was read and allowed, which included stamps, stenographer's salary, Secretary's salary and miscellaneous items, from January 30th to May 1st, 1922, amounting to \$763.17.

Dr. McVey, Editor of the Journal, submitted the following report: Report of the finances of the Journal of the Kansas Medical Society including the Credit and Collection Bureau from May 1st, 1921, to May 1st, 1922.

Cash Received:	
Advertising .....	\$4,558.47
Subscriptions and Sales.....	71.25
C. & C. Bureau.....	408.41
Kansas Medical Society.....	1,500.00
Bills Receivable.....	388.11
Total .....	\$6,926.24
Cash Paid Out:	
Printing Journal.....	\$2,166.50
Stock and Stationery.....	524.61
Salaries and Wages.....	2,540.00
Postage .....	251.97
Miscellaneous Exp.....	158.10
Earned .....	\$1,285.06



Cash on hand.....	\$ 896.95	
Bills Receivable.....	388.11	\$1,285.06

## Directory:

Received from Directory Sales.....	\$1,588.00	
Postage and Mailing.....	\$ 68.50	
Check to Medical Society.....	1,519.50	\$1,588.00

Subscriptions unpaid, 100.....	\$ 200.00	
"Dead, returned, failed, 24.....	48.00	
		\$ 248.00

Considering the high cost of labor, the high cost of paper during the first half of the year, and the volume of business conducted by the Journal office, we feel that this report is rather better than could reasonably be expected. Figured on the same basis as any similar publication, counting membership subscriptions at \$2.00 each, the Journal has earned \$2,941.06 during the year. As a matter of fact instead of \$2.00 per member for the Journal, the Society is paying 45 cents per member for the Journal and for the maintenance of the card index directory and the Credit and Collection Bureau.

The Credit and Collection Bureau is growing in the volume of its business and in its efficiency and with the continued support of the members promises to be one of the most important departments of the Society's endeavors. It has cost the Society nothing, since it has been conducted by the Journal office and the small commission charged has been sufficient to pay for the extra postage and stationery.

A card index directory has been established in the Journal office and with the assistance of the members and the secretaries of county societies it will be possible to keep it up to date. The plates used in the printing of the 1920 directory are the property of the society so that other editions may be published at comparatively small expense, whenever it is thought advisable.

Report accepted and placed on file.

Meeting adjourned, subject to call of the President.

## MEETING OF THE HOUSE OF DELEGATES

The meeting was called to order by the President, Dr. C. S. Kenney, at 8:30 p. m., May 3rd. This was an open meeting, and all members of the Kansas Medical Society were invited to attend. The following order of business was observed: Reading of minutes of last meeting, reports of Secretary, Treasurer, Medical Defense Board and Councilors, reports of Standing Committees, reports of Special Committees, report of Committee on Arrangements, Unfinished Business and New Business. On motion of the House, reading

of the minutes of last meeting was dispensed with.

## SECRETARY'S REPORT.

To the House of Delegates: I desire to submit the following report for the year ending May 1st, 1922:

Balance on hand April 26th, 1921.	
Medical Defense.....	\$3,772.49
General Fund.....	7,663.82
Total .....	\$11,436.31
Received from all sources for year ending May 1st, 1922.	

Dues from Members.....	\$5,115.00
Received from Editor.....	1,519.50
Overcharge on Dues.....	2.00
	\$ 6,636.50
Total .....	\$18,072.81

Amount paid out for year ending May 1st, 1922:	
Medical Defense.....	\$1,236.08
General Fund.....	5,372.24
Total Expenditures.....	\$ 6,608.32
Balance on hand May 1st, 1922....	\$11,464.49

Statement of how the two funds stand:	
Medical Defense.....	\$4,241.41
General Fund.....	7,223.08
Total .....	\$11,464.49

The year just finished has been a busy one for your secretary. We have, with unceasing effort throughout the entire year, campaigned for new members with the assistance of our president, councilors of the various districts and secretaries of the local societies. I consider the work has been successful and the fruits of our labor are being reaped, but we feel that future results will be still greater due to the efforts of these months.

The Society has never been in a better condition as regards either finances or membership and while we have fallen short of our aim of 2,000 members for 1921, we are not discouraged and we are going to raise the same slogan for 1922. With your concerted help and directed effort we can and we will reach the goal. So far this year we have had 145 new names added to the roster of Kansas Medical Society, but on the other hand there are 211 delinquents. We trust these will soon be brought to a realization of the many advantages to be enjoyed by members in good standing, and remit at once. These added to the paid up membership of 1,504 would bring the total up to 1,715. As it is, we have the largest paid up membership for this time of year that this society has ever enjoyed. Therefore, I feel sure that you will all agree with me and also rejoice when I repeat that this has been a prosperous year for the Kansas Medical Society.

In arranging the program for this meeting I must commend the members for their generous response to my call for papers through the local secretaries, and the great difficulty

has been to crowd these into a two days' program. As a fact there were a number of subjects that we were unable to place owing to the limited time, which I regret exceedingly. However, I wish to express my thanks to the members and the local secretaries for their co-operation in this matter.

To our president, Dr. Kenney, I give my hearty thanks for his help and able counsel in all matters pertaining to the society. He has had the interest of the Kansas Medical Society ever at heart and a broad vision for the future of this body; he has been tireless in his efforts for the advancement of the Society and on the job every day of the year.

I also wish to express my thanks and appreciation to the honored guests who have so kindly contributed to the interest and success of the meeting in consenting to give us their valuable papers.

And in conclusion, I say once more, 'remember the slogan—2,000 members for 1922.'

Respectfully submitted,

J. F. HASSIG, Secretary.

Report accepted and placed on file.

#### TREASURER'S REPORT.

To the House of Delegates, Kansas Medical Society:

On March 3, 1922, the Executive Committee of the Council of the Kansas Medical Society, composed of the President, Dr. C. S. Kenney, the Secretary, Dr. J. F. Hassig and two members, Dr. C. C. Goddard, Leavenworth, and Dr. O. P. Davis, Topeka, met in the office of Dr. Hassig in Kansas City and appointed me treasurer of the Kansas Medical Society to fill out the unexpired term of Dr. Munn.

I accepted the position, and on March 31st went to Topeka, where Dr. O. P. Davis and myself with Mrs. Munn checked the accounts of Dr. Munn and found them to be correct with the exception of ten cents, this shortage having been caused by an error in a check for ten cents more than it should have been, thus causing a difference of ten cents in the accounts of the treasurer and secretary.

Mrs. Munn turned over to me \$3,000.00 in second Liberty Loan Bonds of the United States and \$1,500.00 in bonds of the third Liberty Loan, making a total of \$4,500.00 in Liberty Bonds; also two certificates of deposit on the Merchant's National Bank of Topeka for \$1,000.00 each due July 5th, one certificate of deposit on the Merchant's National Bank due August 1st for \$1,500.00, a total of \$3,500.00 certificates of deposit, which bear interest at the rate of 3 per cent.

There was also on deposit to the credit of the Kansas Medical Society \$741.54 which was checked out of the Merchant's National

Bank April 1st and deposited in the Riverview State Bank of Kansas City, Kansas. The Liberty Bonds and certificates of deposit are kept in safety box at the Riverview Bank.

On March 11th, 1922, I received a check from the Secretary for.....	\$2,478.00
On April 29th another check from Secretary for.....	864.00
Making a total of.....	<u>\$4,083.54</u>

Since I assumed the office of treasurer checks to the amount of \$395.80 have been paid out, leaving a balance in bank of \$3,687.74.

I would advise, if the Treasurer is not so authorized, that he be authorized to invest the surplus funds of the Society in certificates of deposit. While these certificates of deposit draw a lesser rate of interest than other securities in which the funds might be invested, yet I believe that it is better that the treasurer be instructed specifically as to just what investments to make, otherwise, the funds of the Society might be lost by bad investments.

We have also inaugurated a new voucher system for all checks of the Society which will always show just what each check issued pays for, as well as whether items are for general fund or defense fund. These are signed by President and Secretary, and those on the defense fund countersigned by the Chairman of the Defense Fund Committee as well as President and Secretary. Samples of these vouchers are herewith submitted for your consideration.

#### SUMMARY

Total funds of the Society at this date are as follows: \$4,500.00 Liberty Bonds, \$3,500.00 certificates of deposit on the Merchants Bank, Topeka, and \$3,687.74 on deposit at Riverview State Bank, Kansas City, Kans.

April 1st, 1922:	
Cash received from Dr. Munn.....	\$ 741.54
Cash received from Secretary.....	3,342.00
Total cash received.....	<u>\$4,083.54</u>
Cash paid out from March 11th to May 1st, 1922:	
General Fund.....	\$ 245.80
Medical Defense.....	150.00
Total expenditures.....	<u>\$ 395.80</u>
Balance in bank subject to check..	<u>\$3,687.74</u>

Respectfully submitted.

GEO. M. GRAY, Treasurer.

Report received and placed on file.

#### REPORT OF MEDICAL DEFENSE BOARD.

The Medical Defense Board has nothing startling to report. The work, so far as the Board is concerned, is quite routine. The Attorney for the Board is the "bitter-ender" who relentlessly pursues the litigious would-be damage seekers to the jumping off place. We inclose his report herewith, and it is to



be considered a part of the report of this Board.

Following is a statement of the expenditures of the Board for the past year:

1921	
No. 1. May 1st, Journal K. M. S. 1-2 page ad. to May, 1921.....	\$ 90.00
" 2. May 4th, E. D. McKeever, salary for April.....	75.00
" 3. May 17th, Journal K. M. S. Directory.....	2.00
" 4. June 6th, E. D. McKeever, salary, May \$75.00, exp. and per diem Independence, \$64.29.....	139.29
" 5. June 27th, E. D. McKeever, salary June.....	75.00
" 6. August 6th, E. D. McKeever, July \$75.00, exp. and per diem Rochester, Minn., \$122.87.....	197.87
" 7. September 2nd, E. D. McKeever, sal. August.....	75.00
" 8. October 10th, E. D. McKeever, sal. September.....	75.00
" 9. October 10th, O. P. Davis, postage.....	2.00
" 10. November 9th, E. D. McKeever, sal. October, \$75.00; exp. and per diem, Paola, \$54.92.....	129.92
" 11. December 10th, E. D. McKeever, sal. November.....	75.00
1922	
" 12. January 4th, E. D. McKeever, sal. December.....	75.00
" 13. February 9th, E. D. McKeever, sal. January.....	75.00
New Series—	
No. 1. March 11th, E. D. McKeever, sal. February.....	75.00
" 2. April 2nd, E. D. McKeever, sal. March.....	75.00
Total.....	\$1,236.08

Respectfully submitted,

O. P. DAVIS, Chairman.

D. R. STONER.

J. A. DILLON.

Report received and placed on file.

#### REPORT OF EDWIN D. MCKEEVER, ATTORNEY FOR DEFENSE BOARD.

Since my last report the following cases appear to have been filed:

Oaks vs. McDougall, Wyandotte County.

Russell vs. Newman & Young, Linn County, brief filed.

Peterson vs. VanPelt, Miami County.

Mast vs. Dillon, Pawnee County.

Raney vs. Smith and Nevitt, Allen County, returned by Supreme Court.

There are a number of cases threatened and there might be some more brought soon. I have taken a number of depositions in the last year. I made one trip to Rochester and others inside the state.

The case of Oaks vs. McDougall, we took the depositions in August, 1921, at Rochester, Minn., and have heard nothing of the case since. The depositions were decidedly in favor of Dr. McDougall. In my last report I stated that in the case of Russell vs. Newman and Young in Mound City that at Ft. Scott, that we were about to have the demurrer sustained to the evidence and have the case thrown out of court, when the attorney for the plaintiff dismissed the case without prejudice to a new trial. Under the law he had a right to refile it within a year,

which he has done. We have taken depositions in this case and expect to try it in June.

The case of Peterson vs. VanPelt was tried at Paola and the jury returned a verdict in favor of the doctor. He and his wife operated a hospital, and were tried for damaging a lady's feet by burning them with an electric pad. The jury found that there was no evidence to prove who burned the lady, and they returned the verdict against her.

A case has been filed against Dr. J. A. Dillon by a lady by the name of Mast, and this case is still pending. Dr. Dillon is a distinguished physician, director of the Defense Board, and the plaintiff evidently thinks she is shooting at some very fine game. This illustrates the fact that any doctor is liable to be sued for malpractice, especially if he looks like a judgment could be collected off him.

The case of Raney vs. Nevitt and Smith was tried some years ago at Iola, and the demurrer sustained to the evidence and the case taken from the jury and the plaintiff appealed to the Supreme Court. I have always feared we would lose if it went to the Supreme Court, so I was not disappointed because the Supreme Court reversed me and sent it back to be tried again. Since the last trial the lady has secured a divorce from her "then" husband, and is married again I understand. I do not know what her name is now. We do not think the results of this case will be very serious to the doctors.

Since the last report I tried a case against E. C. Wickersham, being the case of Moody vs. Wickersham. It was not strictly a malpractice suit, but Dr. Wickersham being a member of the Society, my services were tendered. He was charged with putting a woman with smallpox in a poorly equipped pest house, in his capacity of health officer. This was in Independence, Kan. She got a judgment of \$1,244.00 against him, but we have applied to the Supreme Court, and I expected it to be reversed.

The case of Foreman vs. Surber is also pending in the Supreme Court. It will be recalled judgment of \$3,000.00 was recovered against Dr. Surber, after the second trial, and this was the first time any doctor has lost his case since I have been on the defense. We expect to reverse this case, although we will not have as good a case in the Supreme Court as we have in the case of Moody vs. Wickersham.

Respectfully submitted,

EDWIN D. MCKEEVER.

Report received and placed on file.

## COUNCILORS REPORTS.

Dr. L. W. Shannon, Councilor of the First District gave the following report:

All the counties of the first district have organized local societies except the counties of Jefferson and Pottawatomie, and a number of the physicians in these counties I am informed belong to the Society in Topeka and Manhattan, respectively.

Washington County reports 27 physicians in the county with 12 having paid their local and state dues, with 15 eligible but not in the society.

Jackson County reports 15 physicians in the county with paid membership of 11, others eligible.

Atchison County reports 28 physicians in the county with a paid membership of 14, 4 eligible not in the society.

Doniphan County reports 16 eligible and 16 paid memberships.

Brown County reports 23 paid up members with one eligible recently moved into the county.

Nemaha County made no response to inquiries, however this county has been revived since the last annual report and has apparently taken on new life and reported 12 paid up members after their annual election in the spring.

Respectfully submitted,

L. W. SHANNON, Councilor.

Dr. C. C. Goddard, Councilor Second District, gave the following report:

The Second district is in very good shape so far as I am able to ascertain. No visitations have been required, no dissensions have been reported and we are going along very nicely with good membership.

Very respectfully,

C. C. GODDARD, Councilor.

Dr. P. S. Mitchell, Councilor Third District, gave the following report:

The eleven counties comprised in the Third District are all thoroughly and well organized with the exception of Chautauqua, in which there are so few doctors and they are so completely isolated from larger centers, that they refuse to become interested so far, however there are hopes for the future. The little disturbance in Parsons is somewhat quiescent at the present time and may render its own solution in time; however it is my opinion, that a group or clinic as a whole possess no rights of advertising their wares, that should not be respected in the individual.

A stand should be taken on this by our society.

Respectfully submitted,

P. S. MITCHELL, Councilor.

Dr. O. P. Davis, Council Fourth District, gave the following report:

The Fourth District is in about the same excellent condition as narrated in my last report. The counties of the district, with the exception of Geary, are components of two large and flourishing societies. Shawnee County Society draws membership from Wabunsee, Osage and Shawnee. Lyon County Society draws from Morris, Chase and Lyon. Practically all the eligible physicians of these several counties are enrolled in these societies.

These two societies are large and flourishing organizations, have regular and well attended meetings, and are real honest-to-goodness societies. I recently visited the Lyon County Society, in company with the President and Secretary of the State Society and greatly enjoyed the hospitality extended and the enthusiasm of the membership in attendance. The Shawnee County Society is, of course, my joy and pride, in which I have worked and played since young manhood. It is now I believe the largest (and best) society in the state, full of pep and aggressive and progressive spirit, ready to try anything and everything at least once, looking to the making of its members happier and better doctors. Its energy and spirit are on exhibition during this meeting and I hope will meet with your approval. It owes much to the real secretary it possesses.

The Geary County Society is unique in being an organization without officers and meetings, so far as reported. I am willing to do anything I can for Geary County at any time, but up to date nothing has been done to change the condition that has prevailed there for years.

O. P. DAVIS, Councilor.

Dr. G. A. Blasdel, Councilor Fifth District, gave the following report:

In connection with my official duties as Councilor for the Fifth district I beg to submit the following report: Of the 182 physicians practicing in my District, 150 are members of their county societies.

Two in Kiowa County (which is unorganized) belong to the State Society. Rice County has 20 practitioners, 15 belonging to the society. Stafford County has 15 practitioners, 12 belonging to that society. Dr. Rose, now residing in Hutchinson, is a member of the Stafford County Society. There



are 12 practicing in Pratt County and all 12 are members of their County Society.

There are 26 members of the profession in Marion County and 24 are members of the Marion County Society. In Harvey County there are 32 practitioners; 30 are members of the county society. Two physicians from Butler County are members of Harvey County, making 100 per cent membership in Harvey County. There are 21 physicians in McPherson County, 17 being members of the McPherson County Society.

Reno County has 50 practitioners, 40 being members of the Reno County Society. There are 6 in Kiowa County, 2 belonging to the State Society as stated above.

Visited the Pratt County Society the first Monday of April. At this meeting Pratt County Society voted to invite members of the profession practicing in Kiowa County to become members of the Pratt County Society, and voting (if their invitation was accepted) to hold some of their meetings throughout the year in some of the towns in Kiowa County. I also visited the Harvey County Society earlier in the year.

In closing my report I want to say, that while I am proud of my district and the work that it is doing, I would like to see the membership more nearly 100 per cent.

Respectfully submitted,

G. A. BLASDEL, Councilor.

Dr. E. S. Edgerton, Councilor Sixth district, gave the following report:

The Sixth District, with the exception of Barber, Clarke and Comanche counties, is well organized and holding regular meetings. Plans are in the making for the organization of a union of Clarke and Comanche counties. Sedgwick County has entertained several of her neighbors with dinners and scientific programs, and there has been such universal interest shown that there is a movement now on foot to reorganize the old South Kansas Medical Society.

Sumner and Cowley Counties also are planning to join occasionally with Kay County, Oklahoma, in a tri-county meeting to stimulate greater interest.

There is very little news from the district, which, however, means that we are having no serious troubles and are going along in an orderly and healthy manner.

Respectfully submitted,

E. S. EDGERTON, Councilor.

Dr. E. G. Mason, Councilor Seventh District, gave the following report:

I wish to report to you that the Seventh

District is in good working order. Every county in the district is organized and holding occasional meetings, except Rooks County, which has no organization of their own, but the doctors in the north and central parts of the county belong and hold their membership in Norton County, and the doctors in Plainville in the southern part, hold their membership in Central Kansas Society.

The doctors of the district, with few exceptions, are members of the State Medical Society. There is a general good feeling in the district and the doctors are working in harmony in the several counties.

Respectfully submitted,

E. G. MASON, Councilor.

Dr. H. N. Moses, Councilor Eighth District, gave the following report:

Medical organization in the Eighth District has been more stable during the past year in each of the three county medical societies. Each of the societies has held regular meetings with an attendance increased over that of last year.

The Saline County Medical Society, by nature of the population and the location, is the largest and best attended, holding monthly meetings with a varied program and dinner.

The Ellsworth profession are united with the Central Kansas Medical Society, holding quite regular meetings.

Dickinson County Medical Society is well organized, having quarterly meetings, well attended. Places of meeting have been at Abilene and Herington.

The Lincoln County Society has been stimulated; attendance has been increased, but owing to climatic conditions and the greater distance of members, the meetings were not as well attended as desired.

There are only a few of the practicing physicians who are not members of the county organization. Dickinson County, long unorganized, has a number of eligible men who should enroll, and it is hoped that enough pressure will be brought to bear upon them to take the step.

Interest in the meetings of the societies has been increased by bringing in men from the outside. The University of Kansas School of Medicine has been drawn upon to profit by their presentation of their respective subjects.

It has been found that an occasional dinner has added to the sociability as well as to the attendance of the meetings.

H. N. MOSES, Councilor.

Dr. C. S. Kenney gave the following report as Acting Councilor of Ninth District:

The Ninth Councilor District comprises the counties of Cheyenne, Sherman, Rawlins, Thomas, Decatur, Norton, Phillips and Smith. Two societies are maintained, the Smith County with 16 members. No meetings were held, however, last year.

The Decatur-Norton organized in 1904, has been active and has members from seven of the eight counties in the district. Two good meetings were held in 1921 with and average attendance of 22½. As this report is written there are forty-six paid up members. In the district are seventy-six physicians eligible for membership and fifty-eight members, or 76%, which is really a good showing.

By counties the percentage is:

County—	No.	Mem	Pct
Cheyenne .....	6	4	66 2-3
Sherman .....	5	4	80
Rawlins .....	7	3	43
Thomas .....	6	4	66 2-3
Decatur .....	10	7	70
Norton .....	11	11	100
Phillips .....	16	9	56 1-4
Smith .....	16	16	100

Outside counties, four members. Total number physicians in both societies, 62.

Respectfully submitted,

C. S. KENNEY, Acting Councilor.

Dr. D. R. Stoner, Councilor Tenth District, gave the following report:

Beg to submit the following report of the Tenth Councilor District for the year 1921.

The Tenth District includes the counties of Wallace, Logan, Gove, Trego, Graham, Sheridan, Ellis and Russell.

The Tri-County Society has been merged with the Central Kansas, making one large medical society for the district, some few members joining other nearer component societies.

Regular quarterly meetings have been held alternately at Ellsworth and Hays, also one joint meeting with the lapsed Tri-County, and one with the Ninth Councilor District and component societies at Colby.

A number of new physicians have located in this district in the past few months. Approximately 90% of eligible physicians in this district are members of Central Kansas Society or adjoining societies.

In a general way the society work and interest has been very satisfactory for the past year.

Respectfully submitted,

D. B. STONER, Councilor.

#### REPORT OF EXECUTIVE COMMITTEE OF THE COUNCIL.

At the call of the President, the Executive Committee of the Council met in Kansas City,

Kansas, March 3, 10:00 a. m., at the office of the secretary, for the purpose of naming a treasurer to succeed the late Dr. L. H. Munn, and transacting any other business that might be called to their attention.

Members of the committee present: Dr. C. S. Kenney, president; Dr. J. F. Hassig, secretary; Dr. C. C. Goddard and Dr. O. P. Davis.

Motion was made by Dr. C. C. Goddard, that Dr. Geo. M. Gray of Kansas City be made treasurer to succeed Dr. Munn; seconded by Dr. O. P. Davis, and on vote of the committee his election was unanimous. A certificate of election was made out, certifying his election, and signed by all members present.

Dr. Gray was also elected a member of the Executive Committee to fill the vacancy caused by the death of Dr. L. H. Munn.

On request of the chairman of the Committee on School of Medicine, a motion was unanimously carried that the committee be authorized to make a proposition to Chancellor Lindley of the University of Kansas that a survey of the Medical School be made by three competent men of national reputation connected with medical schools, and that every effort be made to get the best men, and these men come to their conclusions uninfluenced by persons locally interested, either within or without the school, and that the medical society would stand half the expense of such a survey, said half not to exceed \$300. Meeting adjourned.

C. S. KENNEY, Chairman.

Report approved and placed on file.

#### REPORT OF COMMITTEE ON PUBLIC HEALTH AND EDUCATION.

Your Committee on Public Health and Education has made an attempt to function in a limited way during the past year. Not having any ways and means at our disposal, the activities of your committee are necessarily circumscribed and more or less hampered in any plans that they might wish to carry out. However, an attempt was made last fall to secure the cooperation of county and district medical societies to put on a cancer week program in cooperation with the American Society for the Control of Cancer. A letter was addressed to the secretary of each county medical society in the state requesting that the matter be presented to their society asking that the committee be notified if the county society would undertake putting on the cancer week program.

The committee must express its disappointment that a greater number did not see fit to



take up the education of the public in the fundamentals of cancer control, which is essentially an educational proposition. Nevertheless, about ten different county societies did provide for cancer week, in some counties holding meetings in the larger towns of the county. About 40,000 pieces of literature, which included literature distributed through local health departments in the larger cities, which put on the campaign in lieu of the refusal or neglect of the county society to do so, were distributed. Altogether the committee is of the opinion that the campaign was worth while and should be continued.

The committee respectfully recommends that sets of carefully selected slides be secured by the State Society which might be available to county societies to use in giving meetings to the public illustrating important phases of disease control, nostrum fakes, safety first, conservation of vision, etc. The committee believes that great opportunity awaits the activity of the State Society along these lines to the end that the people be advised concerning the duty of the medical profession of the state in matters relating to the cure and prevention of disease and to the menace of those who prey upon the sick public by illegal and irregular practices and use of fake remedies and cures.

Respectfully submitted,

S. J. CRUMBINE, Chairman.

Report received and placed on file.

#### REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

The annual meeting of the Committee was held at Dr. Crumbine's office, Topeka, on Friday, January 13, 1922, and was called to order by the President of the Kansas Medical Society, Dr. C. S. Kenney. Present: Dr. J. T. Axtell, Newton, chairman; Dr. J. A. Milligan, Garnett; Dr. W. S. Lindsay, Topeka, and Dr. C. H. Lerrigo, representing the State Board of Health.

After some discussion it was decided that it would not be wise to agitate or recommend any legislative policy this year. It was, however, after a full discussion, decided that a campaign of public education was feasible and the following resolution was unanimously adopted:

*Resolved*, That we earnestly recommend the councilors of the Kansas Medical Society to adopt the policy of the Committee on Public Policy and Legislation to support a campaign of public speaking throughout the state on subjects of health and dietetics.

That a list of reliable speakers be secured and sent to high schools, consolidated schools,

Rotary, Kiwanis and Lions clubs, and any other organizations that will ask for such meetings.

That such clubs be instructed that speakers can be secured and asked to extend such invitations.

That the traveling expenses of such speakers be paid by the Kansas Medical Society.

The following resolution was also adopted: . . . WHEREAS, Believing it to be for the best interest of health the society, the Committee on Public Policy and Legislation of the Kansas Medical Society hereby

*Resolve*, That this Society should give its unqualified support to the women's organizations of the state in their endeavor to place upon the statute books of this state a law requiring physical examination before marriage.

*Resolved further*, That to the extent of its ability, the Kansas Medical Society should urge the next legislature to make sufficient appropriation that a constructive program for venereal disease control may be continued by the State Board of Health. Be it

*Further Resolved*, That this Committee recommend to the Council of the Kansas Medical Society that said Council urge the Senators and Representatives from Kansas in the National Congress to support that item in the national budget providing for aid to states in the amount of \$225,000 for Venereal Disease Control work.

It was evident from the discussion at the meeting of our committee that the members believe the time ripe for education of the masses of people on sanitary matters and rules of health. Our magazines are now full of health articles that are eagerly read. Our daily papers are giving more attention to the subject. Our women's clubs are interested in better health and prevention of disease, but the best field of all for this kind of work is in our high schools and in the consolidated schools that are becoming so common throughout our state. Here we find large classes of young people who are eager to learn the laws of health.

At no one previous time in the history of our state has there been so many public health nurses, Red Cross nurses and school nurses examining children for defects and educating the people. In our opinion, we, as physicians, must be awake to this movement.

We should no longer abuse Chiropractors, Osteopaths and Christian Scientists. If we have something better, as we are so sure we have, it is up to us to show the people the difference. Physicians can go no further than they take the people with them. We must

educate the masses as to the cause of disease and its prevention. During the year there has been a larger number of public meetings addressed by physicians than in any previous year.

This committee feels that it has encroached somewhat on the duties of the State Board of Health, but it is with the entire permission and in perfect accord with the committee on Public Health and Education, of which Dr. S. J. Crumbine is chairman.

Respectfully submitted,

J. T. AXTELL, Chairman.

Report received and placed on file.

#### REPORT OF COMMITTEE ON SCHOOL OF MEDICINE.

The Committee on the School of Medicine desires to submit the following report:

This Committee was appointed by the President shortly after the adjournment of the Wichita meeting, but remained inactive for some time.

Under date of December 27, Dr. Kenney, your President, addressed a letter to me in which he stated that he was expecting a report from each committee and gave me until a fixed date to get my committee together. Trying to be a good soldier, I obeyed orders and called the first meeting of the committee for January 11. The meeting was attended by all members of the committee with the exception of one. A general discussion of the school situation was participated in, the general plan of the work to be done outlined. We adjourned to meet February 12.

A week following the adjournment of this meeting, the chairman of the committee together with the secretary of the State Society went to Chicago to confer with Dr. Colwell, secretary of the Council on Medical Education of the A.M.A., also Dean Dodson of Rush Medical College, who had on two occasions visited our medical school as a member of a committee asked to suggest methods for its improvement. Both of these gentlemen seemed to be very familiar with the conditions confronting our school, and discussed very freely with us the recommendations they had made on the occasion of their various visits to our medical school.

The data gathered from our Chicago visit was presented to the committee at its meeting on February 12. After discussion it was decided to ask for a conference of our committee with the Chancellor of the University before drafting a final report. We wrote immediately to the Chancellor asking that he fix a date for such a conference. The Chancellor was away at the time, consequently there was

a little delay in fixing the date, but on March 1 I received word from him that he had just returned and would be glad to confer with our committee in his office on March 11.

A third meeting of the committee was held in the Chancellor's office on the above date. The unusual snow storm just preceding that date prevented Dr. Kenney, your President, who together with the secretary of the society had been asked to meet with the committee, from being present, and also Dr. O'Donnell, a member of the committee. With these two exceptions all invited were present. At that time the nature of our report was discussed with the Chancellor, and we stated to him the character of the report the committee felt should be made, and suggested to him that the Kansas Medical Society was willing to bear one-half the expense of a survey of the medical school to be made by three recognized medical educators, and that the committee would be glad to embody in their report to the State Society the recommendations growing out of such a survey. This proposition was made on authority of the executive committee of the council of the State Society.

The Chancellor explained to us that the Board of Administration had already made arrangements for a general survey of all the educational institutions of the State, and that he did not feel like suggesting to the board that in addition to this general survey they make a special survey of the medical school, even though the State Medical Society were willing to bear half the expense of same.

The desire of your committee in suggesting such a survey of the medical school was to secure the opinion of recognized authority on medical education concerning the recommendations which this committee desires to make to the State Society. In all the deliberations of this committee there has been but one object present, and that object was the improvement of the medical school, and such recommendations as we desire to make, are in our opinion for the benefit of the medical school without regard to and without consideration of any persons connected therewith.

Before submitting our recommendations we wish first to commend the work of the faculty who have as individuals worked with untiring loyalty for the school, and who are to be congratulated on the type of medical men they have turned out.

In summarizing our recommendations, which must be very general in character, we can not do better than to call attention to the recommendations made by Dr. Colwell at the time of his survey in 1912. His suggestions for improvement were along two general lines,



one under the head of location, the other under the general head of internal organization. His recommendations concerning location this committee does not care to discuss, but his second group of suggestions, namely, under the head of internal organization, his statement to us was that so far as he knew there had been no efforts to correct them, that in his judgment, the suggestions were still pertinent.

The first of these suggestions was that in the faculty conducting the first two years at Lawrence there were too few men bearing medical degrees; that he felt that it was important that the men connected with the teaching of the first two years should, as far as possible, be men with medical degrees.

His second suggestion was that the deanship be separated from that of the professorship of any clinical department. His statement to us was that such a combination had been tried out in various places, and that it had never succeeded.

It is the desire of your committee to submit the following recommendations:

First, that the work of the first two years be conducted as far as possible by men who have in addition to their other degrees a medical degree.

Second, that there should be employed a full time dean, a man who will give his time and energies to the development of the medical school as an agency of service to the State of Kansas. It is the belief of your committee that this is a job big enough to require the time and energy of a really big man, a man possessed of very definite qualities of leadership.

In view of the fact that the State is about to engage upon the building of a very magnificent institution devoted to medical education, certainly the duties devolving upon the man who is responsible for the erection and organization of this institution will be numerous enough, that coupled with the responsibility as Dean of this School, his time will be entirely employed.

Your committee desires to give credit to the school for such work as it has accomplished, but it is also their very definite opinion that the outstanding need of the medical school is leadership. The University as a whole was in just such need. The Board of Administration recognized this need, and two years ago brought to the University just such leadership as it needed, and it is the feeling of your committee that if this same Board of Administration would supply to the medical school the same type of leadership that it has provided for the University as a whole, the

difficulties of the medical school would be solved.

Such a leader would immediately see the necessity for a closer relationship between the school and the State Medical Society. Such a leader would see in the school one of the greatest possible institutions for service to the citizens of Kansas. Such a leader would have no difficulty in securing support for the medical school from the State of Kansas.

While there are many things to commend which we have overlooked, there are numerous other small things about which suggestions might be made; we feel that the one prime suggestion is that there should be secured for the medical school the type of leadership, a standard for which has already been set in the Board's selection of a new Chancellor.

Your committee feels that their work has not been all in vain, even up to this date, for the activities of this committee have awakened in the minds of the medical school an interest in the medical profession of Kansas, as is evidenced by the recent communication of Dr. Sudler in the Medical Journal and letters from a committee of its faculty addressed to the various members of the profession in Kansas.

Respectfully submitted,

C. C. NESSELRODE, Chairman.

Report received, and recommended that a copy be presented to the Board of Administration.

#### REPORT OF COMMITTEE ON HOSPITAL SURVEY.

Your Committee on Hospitals desires to make the following report:

The work of this committee since my connection with it has been always in connection with the American Medical Association Committee on Hospitals and Medical Education. They make their survey of hospitals of the United States every two years, and the work in this State has generally been done through your Hospital Committee. This has consisted of personal examination by members of the committee of larger hospitals of the State, and by questionnaires sent to the smaller hospitals.

Your committee wishes now to acknowledge the assistance they have received from members of the Society throughout the State in looking after these questionnaires.

For the past year your committee has not had a great deal to do, owing to it being a year during which the American Medical Association has not actively engaged in hospital survey. Probably the coming year will see more activity in this direction.

During the past year I have personally examined a number of the larger hospitals, among them Axtell Hospital at Newton; Wesley Hospital, Wichita; St. Francis Hospital, Topeka, and a number of smaller hospitals, through assistance rendered your committee by resident physicians. During the past year there has been a general improvement in hospitals of the State owing to the activity of the American College of Surgeons, the American Hospital Association, and the American Medical Association, all working along different lines, but with the same object, that is a betterment of hospital conditions from the standpoint of the patient. This includes better hospital equipment, better care for patients and better case histories and provision for filing same.

Of course, the smaller hospitals of the State can hardly expect favorable recognition from the American Medical Survey, as this is made from the standpoint of desirability for internships, and as you will readily understand, small hospitals without a considerable number of charity patients, their cases consisting principally or wholly of private cases, can never be made very desirable for internes.

The survey made by the American College of Surgeons is from an entirely different standpoint, and has to do with equipment, case records, and organized staffs, the object being to better the condition of hospitals from the standpoint of the patient; that is, to insure better care and treatment of patients while in the hospital. This committee's work during the past year has been in connection with the several associations above mentioned.

Respectfully submitted,

GEO. M. GRAY, Chairman.

Report received and placed on file.

#### REPORT OF COMMITTEE ON MEDICAL HISTORY.

Your Committee on Medical History reports progress. The organization, and some personal account of the men who were active in the profession in Kansas in 1859 and succeeding years is at hand and will be compiled with such papers and pictures as will preserve a record of our doing as coherently as possible.

The period of our history from '61 to '65, during the Civil War, had no meetings, several of the early members serving as officers in the army. One of the charter members, Dr. J. G. Blunt, of Mt. Gillard, now extinct, became a brigadier general. The plan we have is to compile such information as we have and can get, in loose leaf bindings of suitable size for handling, including as many pictures as possible, on print paper. We also have in

mind to add to our collection of pictures of the presidents as many as possible, and have photographs of uniform size in a leather portfolio to be added to as the years go by. These will be placed with the bound history in the historical rooms of the State. There will be some expense connected with this compilation and picture work, which we ask you to authorize. An estimate of the latter, including the album, is \$150 for the fifty pictures we will have.

Respectfully submitted,

W. S. LINDSAY, Chairman.

Report received and referred to the Council for further consideration.

#### REPORT OF COMMITTEE ON SCIENTIFIC WORK.

The Committee on Scientific Work spent about four months in getting up the program, which we wish to submit as the result of our work.

Respectfully submitted,

J. F. HASSIG, Chairman.

#### REPORT OF THE COMMITTEE ON NECROLOGY.

Since the report at the Wichita meeting in 1921, information as to the deaths of thirty-seven physicians in Kansas has been obtained by the Committee on Necrology. This information was gotten from the obituary notices in the Kansas Journal, from the files of the Journal of the A. M. A., and the files of the New York Medical Record. Also from correspondence with the secretaries of the sixty local societies in the State, and in some instances from correspondence with personal friends. Of these 60 local societies 39 report no deaths, 11 report deaths, and no report was received from 10. It is presumed that no deaths occurred in the jurisdiction of these ten.

Following the rule of adding two and one-half per cent to the number of deaths reported on account of delayed reports and possible omissions, we may estimate the total number of deaths at 39. According to the card index of the physicians of the State, kept by our Society, there are 2202 physicians living in Kansas. Thus these 39 deaths are equivalent to 17.66 per thousand. According to the Journal of the A. M. A., the annual death rate in the United States and Canada for 1921 was 14.65 per thousand. The same authority gives the average annual mortality rate for the period of 1902 to 1921, inclusive, as 15.05 per thousand. Therefore, it will be seen that our death rate this year has been considerably more than the average for the entire country.

Of the 37 who died, ten were members of the Society, three were not given, and 25 were



non-members. Twenty-five were in active practice and twelve were retired. Of the 37 decedents, one was 31 years old, two were between 41 and 50, nine between 51 and 60, eleven between 61 and 70, eleven between 71 and 80, two between 81 and 90, and one was 93.

The cause of death in three instances was heart disease; cerebral hemorrhage, chronic nephritis, carcinoma and pneumonia each caused two deaths. One committed suicide. Pernicious anemia, biliary calculi, abscess of the liver, complications following flu, automobile accident and appendicitis each caused one death. The cause for death was not given in 19 instances.

The length of time from graduation in one case was less than 10 years, three graduated more than 10 and less than 20 years ago, eight more than 20 and less than 30 years ago, twelve more than 30 and less than 40 years ago, seven more than 40 and less than 50, four were over 50, and one was graduated 61 years ago. One was unknown.

Of the civil positions held, three were Civil War veterans, two had been city physicians, one had been mayor, one had been pension examiner, one had been president and was treasurer at the time of his death, of this Society.

Dates of death: Seven occurred during the last of April, 1921, and the first part of April, 1922, three occurred in May, 1921, one in June, two in July, one in August, one in September, three in October, four in November, one in December, six in January, 1922, four in February, four in March. It will be seen that the mortality was greatest during the months of April, November, January, February and March, and that cardio-vascular disease, including cerebral hemorrhage, was the most frequent cause of death.

1. WILLIAM BEEBE, Columbus; Medical College of Ohio, 1877; died Oct. 4, 1921, from a bullet wound in the head, presumably self-inflicted, age 69. He was not a member of the Society. Retired. Information: Kan. Journal Oct. A.M.A. Dec. 3.

2. WILLIAM H. BELT, Oswego; University of Louisville, 1870; died Feb. 5, 1922, from pneumonia, aged 75. He was not a member of the Society. Information: A.M.A., March 4; personal.

3. ALBERT W. CARSON, Richland; Medical College of Ohio, Cincinnati, 1875; died Sept. 29, 1921, aged 71. He practiced for nearly half a century and was formerly a member of the Society. Information: A.M.A. Oct. 29; Med. Rec. Oct. 22; Hassig.

4. CHARLES DEWITT CLARK, Minneapolis;

Hahnemann Medical College and Hospital, Chicago, 1867; a retired physician and Civil War veteran; died March 26, 1922, aged 80. Information: A.M.A. April 22, 1922.

5. R. T. DEAN, Wichita, a retired physician, aged 79; died July 16, 1921, from organic trouble. He was not a member of the Society. Information: Matassarín, Secretary, Sedgwich County.

6. AUGUST V. DEBACKER, St. Mary's; graduate of Jno. A. Creighton Medical College, Omaha, 1896; died June 22, 1921, from cerebral hemorrhage, aged 60. He was not a member of the Society. Information: Kan. Jour. Sept.; A.M.A. Oct. 8.

7. JAMES I. DOUTHART, Pratt; license 1901; died Jan. 25, 1922, at Long Beach, Calif., aged 78. He was not a member of the Society. Information: Kan. Jour. March; A.M.A. Feb. 11, Martin, secretary.

8. DANIEL EDWARD ESTERLY, Topeka; University of Pennsylvania, Philadelphia, 1893, aged 54, died May 8, 1921. He was a member of the Shawnee County Medical Society, the American Academy of Ophthalmology and Oto-Laryngology and the A.M.A. Information: Kan. Jour. June; A.M.A. May 21; Med. Rec. June 11.

9. ARTHUR WHITTING EVANS, Independence; Hahnemann Medical College and Hospital, Chicago, 1892; died Jan. 14, 1922, from chronic nephritis, at the Research Hospital, Kansas City, aged 58. He was a member of the Montgomery and State Societies. Information: Kan. Jour. March; A.M.A. Feb. 11; Pinkston, Secy.

10. CHAS. W. EWING, Olathe; Jefferson Medical College, Philadelphia, 1888; died Jan. 17, 1922, from heart disease, at Kansas City, aged 60. He was not a member of the Society. Information: Kan. Jour. March; A.M.A. Feb. 18.

11. LEWIS ADISAN FISHER, Byers; Medical Dept. of Butler University, Indianapolis, 1881; died Jan. 7, 1922, in a local hospital at Sterling, aged 64. He was a member of the Stafford County and State Societies. Information: Kan. Jour. Feb.; A.M.A. Jan. 12; Scott, Secy.

12. ROBERT B. GIBB, Pittsburg; Hospital College of Medicine, Louisville, Ky.; died April 9, 1922, aged 45. He was chief of staff of Mt. Carmel Hospital and a member of the Clinical Surgical Society of America and of his County and State Societies. Information: A.M.A. April 29, 1922; Church, Secy.

13. JOHN GREEN, Galena; Indiana Medical College, Indianapolis, 1878, aged 76, a member of the 846th Indiana Regiment during the Civil War; died April 24, 1921. He was not

a member of the Society. Information: A.M.A. May 21.

14. WILLIAM S. HENDRICKS, Iola; Medical College of Ohio, Cincinnati, 1860; died April 29, 1921, aged 93. He was retired and not a member of the Society. Information: Kan. Jour. July; A.M.A. June 4.

15. EDGAR E. ISENBERG, Stockton; Barnes Medical College, St. Louis, 1899; died Oct. 22, 1921, of carcinoma of the stomach and general carcinomatosis, aged 50. He was not a member of the Society. Information: Kan. Jour. Oct.; A.M.A. Nov. 19; Colt, Secy.

16. JAMES M. JAMISON, Topeka, colored; Meharry Medical College, Nashville, 1877; died Dec. 30, 1921, aged 70. He was not a member of the Society. Information: A.M.A. Jan. 28; Brown, Secy.

17. WILLIAM KAMP, Belleville; Albany Medical College, Albany, 1882; formerly mayor of Belleville; died March 7, 1922, aged 65. He was a member of Republic County and State Societies. Information: A.M.A. April 1, 1922; McVey.

18. WALLACE B. KELLY, Independence; New York Homeopathic College, and Flower Hospital, New York, 1881; died July 22, 1921, aged 76. He had practiced in Independence about 35 years, and was city physician many years. He was a member of the Montgomery County and State Societies. Information: Kan. Jour. Aug.; A. M. A. Aug. 13; Pinkston, Secy.

19. JAMES K. P. KESSLER, Cherryvale; Cincinnati College of Medicine and Surgery, 1881, city physician of Cherryvale; died Nov. 18, 1921, from heart disease, aged 77. He was not a member of the Society. Information: Kan. Jour. Jan.; A.M.A. Dec. 10.

20. GEORGE BUTLER LAMBETH, Moran; Kansas City Medical College, 1889; died March 25, 1922, of pernicious anemia, aged 65. He had practiced in Moran for 37 years, and formerly been a member of the County and State Societies. Information: Mitchell, Secretary Allen County.

21. ISAAC H. MAGILL, Corning; University Medical College, Kansas City, Mo., 1884; died April 18, 1921, in Lawrence, where he had retired, aged 60. He was not a member of the Society. Information: Kan. Jour. July; A.M.A. July 30.

22. WILLOUBY MANDES MARKS, DeSoto; attended University of Pennsylvania; licensed 1901; a practitioner for nearly 50 years at DeSoto; veteran of Civil War; died May 25, 1921, aged 82. He was not a member of the Society. Information: Kan. Jour. July; A.M.A. June 25.

23. ROBERT E. MASSEY, Topeka; Kansas

Medical College, Topeka, 1898; died in a local hospital Jan. 3, 1922, from pneumonia, aged 60. He was not a member of the Society. Information: Kan. Jour. March; A.M.A. Feb. 18; Brown, Secy.

24. WILLIAM H. MATHIS, Waverly; St. Louis Medical College, 1867; died May 26, 1921, aged 81. He was not a member of the Society. Information: Kan. Jour. July; A.M.A. June 18.

25. AMANUEL B. MAYFIELD, Salina; St. Louis College of Physicians and Surgeons, 1886; died Nov. 9, 1921, from cancer of the œsophagus, aged 67. He was not a member of the Society. Information: A.M.A. Jan. 28; Brittain, Secy.; McVey.

26. LEWIS HOLLAND MUNN, Topeka; State University of Iowa College of Medicine, Iowa City, 1880; Bellevue Hospital Medical College, 1882; Treasurer and formerly President of the Kansas Medical Society; chief surgeon of Stormont Hospital; died Feb. 24, 1922, aged 62, from cerebral hemorrhage. He was a member of the Shawnee County and State Societies. Information: A.M.A. March 18; Brown, Secy.; McVey.

27. JOHN W. MURRAY, Emmett; University of Louisville, 1886; died Jan. 10, 1922, from biliary calculi, aged 59. He was not a member of the Society. Information: Kan. Jour. March; A.M.A. Feb. 18.

28. MARQUIS L. McALILLY, Hutchinson, Missouri Medical College, St. Louis, 1880; died Oct. 30, 1921, at Cloverdale, aged 69. He was not a member of the Society. Information: Kan. Jour. Oct.; A.M.A. Nov. 19; McVey.

29. WESTON H. McCONNELL, Lafontaine, died August 18, 1921, from abscess of the liver, the result of an automobile accident, aged 60. He was a graduate of Medical College of Indiana, Indianapolis, 1882, and had practiced at Lafontaine for over 30 years. He was a member of the Wilson County and State Societies. Information: Kan. Jour. Sept.; Duncan, Secy.; McVey.

30. H. M. OCHILTREE, Haddam; died at his home Feb. 24, 1922, aged 72 years, from complications following flu. He graduated from College of Physicians and Surgeons, Keokuk, Iowa, 1872. Was a registered pharmacist, and once served as pension examiner. He practiced medicine nearly 50 years, and was a member of the Washington County and State Societies. Information: Kan. Jour. April; McVey.

31. MORTIMER A. PRATT, Wichita; license 1901; died Nov. 28, 1921, in the Wichita Hospital, from injuries received in an automobile accident, aged 80. He was retired and not a member of the Society. Information: Kan.



Jour. Feb.; A.M.A. Jan. 7; Matassarini, Secy.

32. CHARLES E. PUGH, Winfield; Medical College of Ohio, Cincinnati, 1884; died April 23, 1921, aged 61. He was a member of the Cowley County and State Societies. Information: Kan. Jour. June; A.M.A. May 28; McVey.

33. JOHN R. PURDUM, Wetmore; Lincoln Medical College, Lincoln, Neb., 1894; died in November, 1921, from heart disease, aged 57. He was not a member of the Society. Information: Kan. Jour. Jan.; A.M.A. Dec. 24.

34. RICHARD MOWREY RIEGLE, Hillsboro; licensed 1901, aged 61; died April 22, 1921. He was not a member of the Society. Information: Kan. Jour. June; A.M.A. May 21; McVey.

35. NELSON STILES, Wichita; formerly of Medford, Okla.; died on March 20, 1922, from uremia, aged 67. He was graduated from the College of Physicians and Surgeons, Baltimore, 1882. He was retired and not a member of the Society. Information: Med. Rec. April 22, 1922; Matassarini, Secy.

36. GEORGE EBRIGHT THOMPSON, Dodge City; St. Louis University, St. Louis, Mo., 1921; died April 9, 1922, from appendicitis, aged 31. Information: Pine, Secretary Ford County.

37. THOMAS A. THOMPSON, Topeka; died Feb. 3, 1922, aged about 72. No other information obtainable. Information: Brown, Secy.

Report received and placed on file, with recommendation that committee send a resolution of sympathy to the families of the deceased. Silence for one moment was observed, in respect to memory of the deceased.

Information received from Wichita meeting, should have been in 1921 report:

1. OKEY JOHNSON CASTRO, Hutchinson; University of Louisville, 1891, aged 54; died April 14, 1921. He was a member of the Reno County and State Societies. Information: Kan. Jour. June; A.M.A.; Blasdel.

2. HENRY BURTON JORDAN, Medicine Lodge; College of Physicians and Surgeons, Kansas City, Kan., 1902; Capt. M. C., U. S. Army, discharged Dec. 14, 1918; died April 4, 1921, aged 53. He was not a member of the Society.

3. JAMES B. MERCER, Kansas City, aged 50; died March 17, 1921, from cerebral hemorrhage. He was graduated from the Medico-Chirurgical College of Kansas City, 1905. He was not a member of the Society. Information: Kan. Jour. June; McVey.

#### REPORT OF THE LIBRARY COMMITTEE.

We have investigated the Library and have looked up its history and have consulted with Dr. C. A. McGuire and have talked with various physicians, with the following conclusions worded briefly:

The Library has some 2000 odd volumes and about a dozen periodicals. The interest on \$5,000 is available for the purchase of new books and new journals each year. Recommendations have usually been made by Dr. C. A. McGuire. Neither he nor anyone else knows how he got his appointment.

The book shelves contain many old volumes and many useless systems. Some of the periodicals are good, several are worthless. There is no complete catalog of the books. Very little use is made of the Library by physicians. Reasons for this vary from those who do not know that the books are available to those who do not like the chairs they have to sit in, and from criticisms of the selection of books to complaints because the Library closes at 5:30 p. m.

It is important to correct any misapprehensions which may exist concerning the ownership of the Library. It is owned by the State of Kansas and not by the State Medical Society. As a state medical society we are privileged to make suggestions to the Librarian, who is disposed to act upon them, for the reason that the Library is desirous of serving as many people as possible, and at the present time the medical library is not used enough to justify either the money spent or the space allowed.

Your Committee recommends:

1. That a committee be appointed on a salary to go through the present library, book by book, and with the assistance of the Librarian throw out those books of no present value and catalog those books which are or which might be of value.

2. We recommend that this catalog together with a statement of the nature and purpose of the Library be printed by the State Printing Plant and a copy mailed at the expense of the State Medical Society to every physician in the Society.

3. We further recommend that this new committee make a study (presumably with the assistance of the Editor of the State Medical Journal) of the desires of the physicians of the State, particularly those who make use of the Library, as to what new books and what sort of periodicals are desired and that they make specific recommendations in cooperation with Dr. C. A. McGuire and the Librarian in regard to such purchase.

4. We recommend that Editor of the State

Medical Journal be requested to file some of the medical journals which he receives in exchange for the Kansas Medical Journal in the Library.

5. We finally recommend that the State Medical Society consider the opportunity which this nucleus for the Library affords and for the present with interest, and in the future with financial support, encourage its growth.

P. S.—The Committee would go so far as to recommend that a little more room be allowed the medical books and that some new chairs and tables be provided and kept free of dust so that the physicians who use the Library might do so in comfort; but it hesitates to make any further requests of the Library people, in view of the fact that in the past so few people have used the Library.

Respectfully submitted,

KARL A. MENNINGER, Chairman.

Report received, and referred to the Council for final consideration.

Dr. McVey reported 100 unpaid subscriptions for the Directory and asked what the pleasure of the meeting was relative to these subscriptions. A motion was made, duly seconded and carried, that the accounts be given to the Collection Bureau for settlement, and every effort made to collect them.

#### PROPOSED AMENDMENT TO THE BY-LAWS.

Section 2, Chapter V of the By-laws shall be amended by striking out the word "second" and inserting therefor the word "last" in the fourth line of said section.

The last sentence in Section 5, Chapter X, shall be amended to read as follows, and shall then become Section 5:

Section 5. Before a charter is issued to any county society, full and ample notice and opportunity to become a member shall be given to every physician in the county, who is eligible, as hereinafter provided.

The remainder of Section 5 shall be amended to read as follows and shall then become Section 6:

Section 6. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally registered physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible for membership. And on proper application, at a regular meeting of the Society, or with the Secretary if infrequent meetings are held, presenting therewith a statement of his pro-

fessional attainments, and a recommendation of two members of the Society, together with the required membership fees and dues, the applicant thirty days thereafter shall be enrolled as a member of such county society, in the absence of any specified objections or charges on the part of a member of the society. Provided, that unless such application has been made at a regular meeting of the society, the Secretary shall notify each member of the society of the application pending. Any charges or objections against an applicant shall be in writing over the signature of the members preferring the same, and shall be referred to the Board of Censors, who shall canvass the evidence, give the applicant ample opportunity to controvert the same, and shall submit their findings within two months from the date of reference to the society for its decision, which decision shall be by ballot.

Present section 6, chapter X shall be Section 7 and shall be amended by adding the following: "And determine whether or not the physician appealing shall hold membership in the society."

Sections 7, 8, 9, 10, 11, 12 shall be made sections 8, 9, 10, 11, 12 and 13.

In present section 13 all after the word "Society" in the sixth line of said section shall be stricken out and there shall be inserted therefor the following: "On or before the first day of February of each year."

Present Section 14 shall be amended by substituting for the second sentence of said section the following: "And a member of any component society who is shown in said report to be in suspension shall, upon payment of delinquent dues and assessments, be reinstated without formal action at a regular meeting of such society, unless written objection with specified grounds for same is filed with the Secretary over the name of the member objecting. In case of such objection, the procedure obtaining for admission to original membership shall govern."

Following a general discussion, the amendments were laid on the table for one day, until the next meeting of the House of delegates. Meeting adjourned.

#### Meeting of the House of Delegates

The House of Delegates convened Thursday, May 4th, 1922 at 9:00 a. m., called to order by the President, Dr. C. S. Kenney. After roll call, the following officers were elected for the ensuing year:

President, Dr. M. L. Perry, Topeka.

Vice President, Dr. J. R. Scott, Ottawa.

Vice President, Dr. Leon Matassarini, Wichita.



Vice President, Dr. E. E. Morrison, Great Bend.

Treasurer, Dr. Geo. M. Gray, Kansas City.  
Delegate to A. M. A., Dr. C. S. Kenney, Norton.

The following Councilors were elected for three years: Dr. P. S. Mitchell, Iola, Third District; Dr. E. S. Edgerton, Wichita, Sixth District, and Dr. D. R. Stoner, Ellis, Tenth District. On motion, election of Councilor from Twelfth District was postponed until next year. Dr. C. S. Kenney was elected Councilor of the Ninth District for the unexpired term, of one year. The standing of the Council is as follows:

First District, Dr. L. W. Shannon, Hiawatha, term expires 1924.

Second District, Dr. C. C. Goddard, Leavenworth, term expires 1924.

Third District, Dr. P. S. Mitchell, Iola, term expires 1925.

Fourth District, Dr. O. P. Davis, Topeka, term expires 1923.

Fifth District, Dr. G. A. Blasdel, Hutchinson, term expires 1923.

Sixth District, Dr. E. S. Edgerton, Wichita, term expires 1925.

Seventh District, Dr. E. G. Mason, Cawker City, term expires 1924.

Eighth District, Dr. H. N. Moses, Salina, term expires 1924.

Ninth District, Dr. C. S. Kenney, Norton, term expires 1923.

Tenth District, Dr. D. R. Stoner, Ellis, term expires 1925.

Eleventh District, Dr. J. A. Dillon, Larned, term expires 1923.

Twelfth District, Dr. W. F. Fee, Meade, term expires 1922.

On motion, the President appointed a committee of two, consisting of Dr. J. W. May and Dr. E. E. Liggett, who were instructed to find the new President, Dr. M. L. Perry, and escort him to this meeting, which was done. After being presented, a speech was called for. Dr. Perry responded.

The following amendments to the by-laws were adopted:

Section 2, Chapter V of the By-laws shall be amended by striking out the word "second" and inserting therefor the word "last" in the fourth line of said section.

The last sentence in Section 5, Chapter X, shall be amended to read as follows: "Before a charter is issued to any county society, full and ample notice and opportunity to become a member shall be given to every physician in the county, who is eligible, as hereinbefore provided."

Section 6 of Chapter X shall be amended

by adding the following: "And determine whether or not the physician appealing shall hold membership in the Society."

In section 13 all after the word "Society" in the sixth line of said section shall be stricken out and there shall be inserted therefor the following: "on or before the first day of February of each year." On motion, the House of Delegates adjourned.

### Meeting of the Council

May 4th, 1922—2:00 p. m.

The Council met and organized, called to order by the new president, Dr. M. L. Perry in the Senate Chamber of the State House. Present: President, Dr. L. M. Perry, Secretary Dr. J. F. Hassig, Editor Dr. W. E. McVey, and the following Councilors: Dr. L. W. Shannon, Dr. O. P. Davis, Dr. E. G. Mason, Dr. C. S. Kenney, Dr. D. R. Stoner.

Kansas City, Kansas, was chosen as the meeting place for next year, with a three days' session, on the first Wednesday, Thursday and Friday in May, 1923.

Dr. D. R. Stoner was re-elected member of the Defense Board for a term of three years.

Dr. W. E. McVey was authorized to hire some one to catalog the books in the State Medical Library, and charge the expense to the General Fund of the Society.

On motion, \$25.00 was allowed as expense for this year to the Committee on Medical History for compiling information pertaining to the history of the Society to be bound in loose leaf books, and to have photographs printed of uniform size, in a leather portfolio of former presidents of the Society, which are to be placed in the Historical rooms of the State. Meeting adjourned.

Owing to the lateness of the hour of the adjournment of the House of Delegates' meeting Wednesday evening, May 3rd, the County Secretaries were unable to have a meeting. The lights were extinguished by the janitor.

### REGULAR SESSION

Wednesday, May 3rd, 1922.

The regular session of the Kansas Medical Society convened at 9:00 a. m. to listen to the address of the President, and the reading of scientific papers on the program by members and guests.

The program carried out was as follows:

President's Address, Dr. C. S. Kenney, Norton.

Some Atypical Surgical Cases, Dr. R. C. Dugan, Ottawa.

Discussion opened by Dr. C. C. Nesselrode, Kansas City.

Public Health Progress and Needs, Dr. Thos. Parran, U. S. Public Health Service.

Atresia of the Vagina, Dr. L. F. Barney, Kansas City.

Discussion opened by Dr. D. W. Basham, Wichita.

Relationship of Orthopedics to Neurology, Dr. R. K. Werndorff, Wellington.

Discussion opened by Dr. Karl Menninger, Topeka.

Notes on Treatment of Vernal Conjunctivitis, Dr. J. R. Scott, Ottawa.

Discussion opened by Dr. C. S. Trimble, Emporia.

Ophthalmic Therapeutics, Dr. James W. May, Kansas City.

Discussion opened by Dr. Geo. H. Allen, Topeka.

Marked Displacement of Chest Organs—Clinical Case, Dr. Seth Hammel, Topeka.

Discussion opened by Dr. J. N. Beasley, Topeka.

Treatment of Pulmonary Tuberculosis, Dr. W. S. Hunter, Norton.

Discussion opened by Dr. Ralph Major, Rosedale.

False Conceptions Concerning Pulmonary Tuberculosis, Dr. Jno. B. Crouch, Colorado Springs.

Ileus, Dr. W. E. Mowery, Salina.

Discussion opened by Dr. Alfred O'Donnell, Ellsworth.

Thursday, May 4th, 1922.

The Recurring Tonsil, Dr. L. B. Spake, Kansas City.

Discussion opened by Dr. C. M. Brown, Kansas City.

Some of the Newer Problems in Bronchoscopy, Dr. E. M. Seydell, Wichita.

Discussion opened by Dr. Chas. L. Williams, Topeka.

Anxiety and Fear, Normal and Abnormal, Dr. L. C. Bishop, Wichita.

Discussion opened by Dr. F. A. Carmichael, Osawatomie.

Functional Disease vs. Organic Disease and Visual Field in Functional Nerve Diseases, Dr. Geo. H. Paine and Dr. H. L. Scales, Hutchinson.

Discussion opened by Dr. S. S. Glasscock, Kansas City.

The Use of Bone Plates and Nails in Fractures of the Femur and in Joint Fractures—Lantern Slides, Dr. E. E. Morrison, Great Bend.

Discussion opened by Dr. R. Y. Jones, Hutchinson.

Upper Femoral Fractures, Dr. E. D. Ebright, Wichita.

Discussion opened by Dr. J. D. Riddell, Salina.

Medical Education and the State, Dr. E. H. Lindley, Chancellor Kansas University.

Gold and Mastic Reactions, Dr. H. A. Lindsay, Topeka.

Discussion opened by Dr. M. L. Perry, Topeka.

Consideration of Certain Diastolic Cardiac Murmurs, Dr. Frederick Tice, Chicago.

Blood Sugar Tolerance Tests in the Early Detection of Diabetes Mellitus, Dr. C. F. Menninger, Topeka.

Discussion opened by Dr. P. M. Krall, Kansas City.

Goiter, Dr. J. T. Axtell, Newton.

Discussion opened by Dr. R. Claude Young, Arkansas City.

J. F. HASSIG, Secretary.

—R—

## CHIPS

The animal creation knows what to eat, when to eat, and how much to eat, except man. He knows so much about his diet that it hurts him.

The dietetic cranks are nearing the edge of the platform but the footlights show up the fads and the medical man sees and is taking notice and is simplifying his patient's menu even to rationalism.

Suggestive or psychological treatment is educational. At a religious revival a few days ago in Wichita, an unlettered man got religion (not Christian) and he was able to read his title clear to mansions in the skies.

A normal man is an honest man. An abnormal man is not necessarily dishonest but he has a bigger fight on his hands to keep in the straight and narrow path.

"Of all tough words the tongue lets go, the worst are these: 'I told you so.'"

Misery weed (Marihuana) is used in brown paper cigarets. It is the Jazz fodder of the Hindoos. It has a kick that brings on dementia precox and other fanciful, up to date astigmata.

There are 6000 telechrometers installed on the Pacific coast. A telechrometer is an instrument that measures and registers the length of a telephone conversation. Its unit is called a telechrone and is equal to one minute. The phone charge is based on the



number of telechrones used in talk. This will help do away with the telephone hog or he will have to pay for his blab. Night talks to doctors will be fewer. It will cost as much to phone as the doctor's visit will cost.

Atavism is a tendency to revert to type—ancestral species. The average man wears one shoulder lower than the other. This is caused by his ancestors wearing but one gallus to keep his trousers up.

When a death is caused by the ignorance of a plug doctor he is liable to criminal prosecution or a suit for malpractice. When the death of a patient is caused by the ignorance of a competent doctor it is a misadventure. The patient is as dead in the one case as he is in the other. It was ignorant ignorance in the former and ignorant intelligence in the latter case. This is not a criticism but an Irish bull from a London correspondent to a medical Journal in reporting the 'Fatal use of the Sigmoidoscope in an examination for dysentery, caused by the use of an instrument by a competent person for necessary examination for dysentery, and that death was due to misadventure.'

"Dr. Albert Abrams, he of the oscillophone notoriety has withdrawn from 'The Medical Society.'" Too much criticism by the medical fraternity on his method of determining the father of an illegitimate child by the reaction of the blood of the child and that of the reputed father, reacting the same as shown by the oscillophone and such evidence being accepted by the court. "Dr. Abrams criticised modern surgery and recalled that if Talleyrand were present at the creation of the world, he would have exclaimed, "Good gracious, they are destroying chaos!" and asserted that the attitude of the medical profession toward new developments is similar to that attributed to Talleyrand."

The Editor of this Journal finds it easy to meet expenses. He meets them at every turn.

Sanitation has changed man's ideas of his Creator. It has improved man's morale. It has increased his span of life, his freedom. It has mitigated his suffering, physically, men-

tally and spiritually. It is but a few centuries ago that people carried nosegays (bouquets) in church and meetings to cover up the odors from lack of sanitation. The odor of the flowers diluted the rich odor from decaying animal and vegetable matter and human excrement and made the air breathed less offensive to the olfactory sense.

In those days the black plague and other visitations of deadly disease by Providence (?) on the people for their sins was common.

Nosegays (bouquets) are used at the present time for their beauty and pleasant odor, to gratify the senses of the possessor. Unpleasant odors are the danger signals to health and a warning by nature to remove the enemy, by cleaning up the deadly visitation of the death angel—filth.

The medical man, be he criminologist or not, is interested in finger prints. We are inclined to think that the Bertillon system, used in the detection of criminals, is of recent origin.

The facts are that finger prints in making personal identification was known to the Chinese before the Christian era. "Case and Comment, the Lawyers Magazine" says that such prints are found in the Assyrian clay tablets in the British Museum and that finger prints have been used as a basis of information for the courts since Sir Francis Galton proved that the papillary ridges which cover the inner surface of the hands and the soles of the feet form patterns the main details of which remain the same from the sixth month of the embryonic period until decomposition sets in after death.

A doctor lets the dead man alone when he is through with his body. Not so the lawyer. The courts follow a man up after he is dead.

"Case and Comment" says that the dying declaration of an infidel may be discredited by showing that the declarant was a non-believer in a God. According to several decisions of the courts, the disbelief of the deceased in accountability after death for deeds done in the body, and in a future state of rewards and punishment, impeaching his dying declaration, and impairing, if not destroying, its value as evidence. Another case is re-

ported in which the testimony of the dying infidel was rejected as evidence because he had boasted of his disbelief in God and the devil, regardless of the time when such a state of mind existed. The theory of the law is, a man can't change his mind and recant while living, and that there are but two ways to make a man good and tell the truth, viz., hope of reward or the fear of punishment in the hereafter.

Circumcision of the tonsil instead of its promiscuous removal is coming to the fore front. The claim is made that removal of the tonsil was founded on histological error. That is, "that the mucous glands around and behind the tonsil open into the tonsil, which they do not." On the contrary, "the tonsil possesses a system of closed lymphatics." The tonsil is not immune to disease and it may be necessary to remove it but it should be a dernier resort. The tonsil is subject to inflammation together with the adjacent tissue the same as other organs of the body. Because we do not know the function of an organ and give that as one reason for its removal is begging the question. Promiscuous, unnecessary removal of the tonsil by the regular profession is one of the seasoned clubs used by the pseudoes, in comparison to the cases of tonsilitis that get well by non-surgical and drugless treatment.

Conservatism is right and wrong. Radicalism is right and wrong. The physician who has found the happy medium in his practice has found the immutable law and governs himself accordingly. And when in doubt gives his patient as well as himself the benefit of the doubt, his name is Eli.

Dr. N. C. Speer of Osawatomie, Kansas, has moved to Kansas City, Kansas, succeeding there Dr. H. B. Lemmon who has gone to Weslaco, Texas, for the benefit of his health.

## R SOCIETIES

### Stafford County Society

Society met in St. John Wednesday, May 10th, at 3:00 p. m. Members present, W. L. Butler, T. W. Scott, Stafford; M. M. Hart, Macksville; C. S. Adams, J. C. Ulrey, J. T.

Scott, St. John. Miss C. N. Hudson, Red Cross Nurse for the west half of the county was present and asked the co-operation of the members of the society in public health meetings to be held in St. John and Macksville some time during the month of June. The society pledged her support and agreed to serve as examiners in the better babies contest.

Dr. C. S. Adams reported his impressions of the state meeting, which he thought the best he had ever attended. He said that the papers were high class and the imported numbers unusually fine. He suggested that the local medical societies were neglecting a manifest duty in the failure to interest themselves more earnestly in matters of public health, hygiene, etc., and said that the medical profession had itself to blame for the increasing popularity of sects and quacks.

On motion the President appointed C. S. Adams, St. John, M. M. Hart, Macksville; J. C. Butler, Stafford, a committee to arrange for public health meetings in each of these cities at stated times and to provide speakers and lecturers, that the general public may be better informed as to health, hygiene and sanitation.

Dr. J. T. Scott, St. John, read a paper on "The Body's Immunizing Mechanism" which elicited general discussion and a request from the society that the author present a paper on "Organotherapy" at the June meeting.

J. T. Scott, Sec.

### Riley County Society

The Riley County Medical Society met at the Gillett Hotel, May 8, at 6 p. m. After dinner the Society adjourned to meet in the parlors at the Gillett Hotel for the regular program. Those present were: Drs. Bressler, Belle Little, Mathews, Reitzel, Groody, Ross, Evans, Hepler, Cave and Colt, Sr.

The President and Secretary being absent the Vice President assumed the President's place and Dr. Colt, Sr., acted as Secretary.

The minutes were read and approved. There was no unfinished or new business. The following program was carried out:

Paper by Dr. Mathews on "Glaucoma," was read and discussed by Drs. Bressler, Colt, Sr.,





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A. L. LUDWICK, A.M., M.D., Asst. Supt.

EDITH GLASSCOCK, B.S.

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Ross, Hepler, Evans and Little. Discussion was closed by Dr. Mathews.

Dr. Hepler gave some very excellent remarks on "Sewage and Sanitary Sewer System."

Resolutions was presented by Dr. Evans and seconded by Dr. Groody that the Riley County Medical Society endorse the efforts of the City Government to care for the garbage in a thorough and a sanitary manner by the use of the closed and stationary cans.

Dr. Groody who is a delegate to the State Medical Society made a full and complete report of same.

The Society adjourned to meet in one month.

—R—  
**DEATHS**

William Kamp, Belleville, died March 7, 1922, aged 65. He was graduated from Albany Medical College, Albany, in 1882. He was formally mayor of Belleville.

George Elright Thompson, Dodge City, died recently, aged 30, at the Thompson and Pine Hospital, following an operation for appendicitis. He was graduated from the University School of Medicine, St. Louis, in 1921. He served in the M. C. U. S. Army during the World War.

Charles DeWitt Clark, Minneapolis, died March 26, aged 80. He was graduated from the Hahnemann Medical College and Hospital, Chicago, in 1867. He was a Civil War veteran.

Lucullus R. Sellers, Fort Scott, died May 7, aged 73, from heart disease. He was graduated from the Indiana Medical College, Indianapolis, in 1887. For sixteen years he was staff physician at Osawatomie State Hospital. He was formerly superintendent at the Larned State Hospital.

—R—  
**Government Needs Aides in Rehabilitation  
of Disabled Soldiers**

Washington, D. C., May, 1922.—The United States Civil Service Commission states that there is urgent need at hospitals of the United States Public Health Service and establishments of the United States Veterans' Bureau for reconstruction aides in physiother-

apy and occupational therapy in connection with the rehabilitation of disabled soldiers, sailors, and marines.

The Commission will receive applications for these positions until further notice. Applicants are not required to report for a written examination, but are rated upon the subjects of education, training experience, and physical ability.

Full information concerning salaries and requirements, and application blanks, may be secured from the United States Civil Service Commission, Washington, D. C., or the board of civil service examiners at the post office or customhouse in any city.

—R—  
**Government Needs Dietitians in Hospitals**

Washington, D. C., May, 1922.—The United States Civil Service Commission states that there is urgent need at hospitals of the United States Public Health Service for dietitians in connection with the rehabilitation of disabled soldiers, sailors and marines.

The commission will receive applications until further notice for these positions. Applicants are not required to report for a written examination, but are rated upon the subjects of education, training, and experience.

Full information concerning salaries and requirements, and application blanks, may be secured from the United States Civil Service Commission, Washington, D. C., or the board of civil service examiners at the post office or customhouse in any city.

—R—  
**Alcohol Made From Wood**

People do not generally think of wood as a source of alcohol; that is the grain or ethyl alcohol formerly used for beverage purposes and still of use in perfumes, in manufacturing ether and as a solvent. It is quite possible, however, to make grain alcohol from wood waste through a process described by F. W. Kressman of the Forest Products Laboratory, Madison, Wis.

This process is outlined in Department of Agriculture Bulletin 983, "The Manufacture of Ethyl Alcohol from Wood Waste," just issued. The making of ethyl alcohol from such things as straw, cotton, wood, and many other plant fibres is not at all new, but prev-



iously, except in very few instances, it was not possible to use these materials profitably.

There is wasted annually, Government experts estimate, some 15 to 20 million tons of wood suitable for the manufacture of ethyl alcohol and capable of yielding about 15 gallons of alcohol to the ton.

The department bulletin which tells about the manufacture of ethyl alcohol from wood waste may be obtained from the United States Department of Agriculture, Washington, D. C.

—R—

### Bone Plate for Use in Fractures Close to Joints or to Epiphyses

The plate described by William H. Byford, Blue Island, Ill. (*Journal A. M. A.*, Feb. 11, 1922), is made of noncorrosive material, 1 inch (2.5 cm.) long, one-quarter inch (6.4 mm.) wide and one thirty-second inch (0.8 mm.) thick. In each end are three fixed pins, three-eighths inch (9.5 mm.) long and one thirty-second inch (0.8 mm.) thick, with cutting points. To apply, a small incision is made, the fracture reduced and the plate hammered on. Very little force need be used. No holes need be drilled, and there is no necessity of the hands touching the wound. The plate holds firmly, and no more care in after-fixation is needed than when a Lane plate is used. To remove it, Kocher forceps are applied and the plate is withdrawn intact.

**WANTED TO BUY**—Trial Set, second hand, either office or suit case style. P. O. Box 617, Topeka, Kansas.

**WANTED:** A few Book Agents to sell the new Crowning Edition of the Celebrated Book on The Physician Himself. Excellent business chances. Address the author, D. W. Cathell, M.D., Emerson Hotel, Baltimore, Md.

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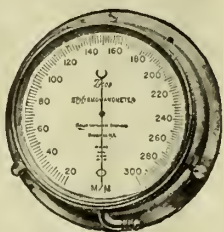
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# THE JOURNAL

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## Kansas Medical Society

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### Some Atypical Surgical Cases

R. C. DUGAN, M.D., Ottawa.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

The following cases are reported in the hope that they may be of interest to you, as they were to the writer, to reiterate the impossibility of a positive diagnosis in some abdominal conditions, and the advisability of and early exploratory in the acute abdomen.

Although the writer has the greatest respect for modern laboratory methods, he, nevertheless, apprehends that we all, occasionally, waste valuable time trying to make a differential diagnosis when the clinical picture points emphatically to a grave surgical condition within the abdomen.

#### CASE 1.

Mrs. W—, aged twenty-seven, one child six years old, was seen in consultation with a very able internist on September 2, 1921. Family history, negative. Personal history, negative, except some pelvic trouble dating from birth of child. Present illness began August 30, with severe cramping pains in pelvis and evidence of shock, followed by vaginal flow, partly bright red and partly very dark blood.

The acute pain subsided, but lower abdomen remained very tender. Bi-manual examination developed a patulous os and somewhat enlarged uterus and a mass in the cul de sac. The condition of shock and abdominal tenderness continuing, she was removed to hospital and operated September 3 under ether anesthesia.

The amount of vaginal flow and patulous condition of os convinced us of a miscarriage. The abdominal condition was judged to be probably a concomitant tubal abortion, possibly a lightening up of an old neisserian salpingitis. Curettage brought away large quantities of debris, unquestionably deciduous. The abdomen was then opened, disclosing a left tubal pregnancy of about two

months, and a large quantity of free blood in abdominal cavity, but fetus and placenta still in tube, hemorrhage from small tear in free border of tube. Patient made an uneventful recovery.

#### CASE 2.

Mr P—, aged seventy-four, was seen in consultation with a very able general practitioner (who had first seen case fifteen hours previously). Family history negative. Personal history negative. All organs apparently normal except heart showed evidence of old endocarditis. Present illness began in the evening of January 13, 1922, with excruciating pain in abdomen, subnormal temperature. Abdomen soft and undistended, no vomiting and one small normal stool. Point of greatest tenderness could not be located. Fifteen hours later was seen by writer, condition same excepting abdomen was distended and beginning muscular rigidity. Neither the attending physician nor myself could determine what had occurred within that abdomen.

The cardiac condition suggested, possibly, embolism of the mesenteric artery, but this was excluded because there was no vomiting or loose bloody stools. The writer suspected the rupture of some hollow viscera.

The family were told very candidly that we could not make a diagnosis and that the prognosis was very grave. They, however, elected to have an exploratory in the hope that a repairable lesion might be found. He was removed to the hospital as quickly as possible and abdomen opened under morphine and ether anesthesia. Quite a quantity of blood stained serum escaped and the whole small bowel and part of colon were gangrenous due to an embolism of the superior mesenteric artery, high up. Abdomen was closed and patient died a few hours later.

#### CASE 3.

Mrs. L—, aged 52 years, one child ten years old. (History up to operation as given by attending physician, a man in whose judgment

I have great confidence.) Moderately fleshy woman. Family history negative. Personal history negative, excepting for periodical attacks of migraine and one or two moderate attacks of abdominal pain which subsided on restricted diet without medicine.

Menstruation regular and normal until two months ago, missed last two periods. Present illness began January 24, 1922, in evening. Sudden onset of moderate abdominal pain. Abdomen tympanitic, but no rigidity. Later during night pain became more severe, vomited twice, but doctor was not called until morning, when he found her reclining on sofa, partly dressed, still complaining of some pain, but said it was much better. Temperature 97 degrees, pulse slightly accelerated. Patient put to bed, ice cap applied to abdomen, restricted diet, no medication. Evening of same day pain less but pulse 120, temperature 97 degrees. Urine was examined at this time both microscopically and chemically, and found normal. Abdomen tympanitic but no rigidity. Bi-manual examination disclosed moderate sized uterus, slightly retroflexed; cervix soft but closed, no flow. Tenderness in right tubo ovarian region and an indefinite induration palpable in that locality. During the next few days symptoms subsided, pain disappeared, passed gas freely. Was allowed light diet tentatively. On the seventh day of illness bowels moved without assistance; diet was increased; patient wanted to get up, but was restrained because of rapidity of pulse, about 90, and subnormal temperature, 97.4 degrees. Pain and tenderness had disappeared except for slight tenderness in right lower abdomen. On tenth day of illness, after feeling so well that it was difficult to keep her in bed, pain returned with moderate severity, pulse jumped to 120, temperature 97 degrees, no vomiting or tympanitis, tenderness in right tubo ovarian region more marked and patient looked more anxious and sick than at any time.

The writer was called in consultation at this time, February 4, and agreeing with the physician that there was probably a tubal pregnancy, the patient's removal to a hospital was advised. She was removed to Ottawa hospital the same day and operated

under ether anesthesia on February 6, disclosing a thickened gangrenous appendix, in the pelvis, adherent to right tube and ovary and surrounded by greatly thickened omentum and a moderate quantity of thick pus. The appendix was ligated and removed, end of cecum so soft that it would not hold stitches. Abdomen was closed with drainage. Large fecal leak resulted, patient continued for five weeks in a precarious condition, rapid pulse, hyperperistalsis and poor pancreatic digestion, as evidenced by condition of discharge at fecal leak, died from exhaustion on March 12.

Some post operative symptoms lead the writer to think that there was also trouble in upper abdomen and through the courtesy of the undertaker, I was present at the embalming and examined upper abdomen, finding a dry gall bladder containing two rather large stones and evidence of a subacute pancreatitis.

#### CASE 4.

The following case is of more interest to the pathologist than the surgeon. Unfortunately was unable to get sufficient autopic data to be of much value.

Male infant, twenty-four hours old, was brought into hospital, with what the attending physician thought was probably an atresia of urethra. Baby was supposed to have passed no urine per naturalis since birth, although bowels had moved several times, was evidently very sick.

However, on removing clothing the diaper was found saturated with urine and a catheter passed easily brought away only a few drops of urine. There was a large tumor in the right abdomen that had the feeling of a cyst. Both my colleague, Dr. Trump, and myself, thought it probably a hydronephrotic kidney. As the child's condition precluded any major operation for relief, we decided to attempt aspiration in the hope for temporary relief and possibly later something more radical. A small trocar was introduced in loin, withdrawing a small amount of thick black semi-fluid material, not urine.

The family were advised to take baby home as a hopeless case, and it died on the way home.

I telephoned the attending physician to try



for an autopsy; this, however, was refused, but in the absence of an undertaker, they asked him to do something to preserve the remains temporarily, and when he opened the abdomen to put in the formaldehyde solution, made as good an exploration as he could without removing any of the organs (which the family would not allow). The following is the doctor's report:

A soft mass about size of cocoanut occupying the site of right kidney seemed to be connected with small bowel. Contents semi-fluid, black meconium-like material. There was no right kidney, neither was this mass connected with the bladder.

#### SUMMARY.

CASE 1. The evidence of an ordinary uterine abortion in this case might easily have masked the rather unusual concomitant tubal pregnancy. The attending physician is entitled to much credit for a difficult diagnosis.

CASE 2. Illustrates the fallibility of any one or two symptoms. Vomiting and diarrhoea with or without bloody stools are classed as pathognomonic symptoms of embolism or thrombus of the mesenteric vessels. Both symptoms were absent in this case.

CASE 4. Was unique to me by reason of the continued sub-normal temperature in the presence of pus in the abdominal cavity. Murphy used to teach three necessary symptoms for the diagnosis of appendicitis—pain, muscular rigidity and fever. We have long since learned that we may have severe appendiceal colic from mechanical causes, as kink, stricture, etc., without either rigidity or fever, and that, in gangrene of the appendix sub-normal temperature for the first twenty-four to thirty-six hours is rather the rule than the exception. But in this case it continued for fourteen days with considerable pus present.

This case was interesting to the writer further in the effect of an old gall bladder lesion upon digestion and the endocrine system during the post operative period. There was hyperperistalsis, poor pancreatic digestion, and an unreasonably rapid pulse suggested hyperthyroidism.

### "The Relationship of Orthopedics to Neurology"

K. R. WERNDORFF, M.D., Wellington, Kans.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

Since modern orthopedic surgery is so closely related to some other branches of medicine, it is quite evident, that neurology is especially interested and allied to this subject. Various disturbances and diseases of the peripheral nerves as well as of the central nervous system frequently give an opportunity to the orthopedic surgeon to weave in the paths of neurology.

I wish to call your attention not only to the usual methods of operations on the bones, muscles and tendons, in order to correct the various conditions encountered in the diseases of both the peripheral and central nervous system; and to point out not only the anatomic and physiologic foundations we have worked out by various operations on the nervous apparatus, I rather request to hint at the fact, that nearly every day we are going to appeal to the neurologist's experience. For instance, our attention is daily attracted to the clinical picture of any painful joint. The most striking diagnostic symptom is the muscular fixation of the joint, in a certain pathognomonic position. How does this position occur? It occurs by a reflectoric spasm of all muscles surrounding and attached to the joint, produced by the irritation of the nerves lying in the inflamed and therefore sensitive synovial membrane. Being aware that the muscular fixation is caused by traumatizing and irritating the synovial nerves, we shall be able to remove the muscular spasm as well as the contracted position of the joint by the injection of cocaine into the joint under certain conditions.

The close relationship of the nerves of a joint and the surrounding muscles enlightened the fact that a reflectoric secondary muscular atrophy is following any trauma and in both acute and chronic diseases of a joint. For example: The weakness of the quadriceps muscle is always found three weeks after a contusion of the knee joint, producing relaxation of the ligaments with the attending symptoms of a squeezed capsule due to the

reflectoric atrophy of the muscles surrounding the joint, thus causing very characteristic pains in the joint.

It is likewise known that in the course of all chronic joint diseases there is always found a very noticeable atrophy of the regionary muscles. The question as to whether a degeneration of the contractile muscular substance has been caused by the evil influence of a toxin is unanswered. In the case of tuberculosis at least, it seems to be so. Daily operations on the bones lead us frequently in the territory of neurology at least in that of the anatomy of the nerves. We dissect, for instance, the musculo spiral nerve along the course of the humerus, the peroneal nerve above the knee, blocking them by conductive anesthesia in performing a bone operation or tendon transplantation in a region of an arm or leg. Many operations on the bones and tendons pretend an attempt to cure the consequences of the diseases of the peripheral nerves and of the central nervous system. Stabilizing operations such as arthrodesis and tendon transplantation are done to correct the loose joints or paralytic deformities.

In dealing with this subject, the exact localization of the lesion must be made and to decide whether a paralytic process is stationary or progressive. We should be particularly concerned in the group of spastic paralysis. Normally, the muscular tonus is regulated and diminished by the paths leading subcortically through the internal capsule and pyramidal tracts to the anterior cornu. In other words, the soul of the brain having a stronger influence than the soul of the spinal cord; thus if the regulating influence of the brain soul becomes interrupted by any disease in the course of the inhibitory paths the spinal soul then alone retains the right of muscular tonus of the respective muscular groups, the tonus being increased by the interruption of the inhibitory fibres. In this case we speak of spastic paralysis. In this signification, paralysis means the departing of the brain soul and it is important to state that in the spastic paralysis the spastic component is always stronger than the paretic one.

In other words, the functional defect in cases of spastic paralysis is usually due to the

disturbance of the muscular balance, less frequently due to a complete paralysis. The disturbed muscular balance produces contracted position of the various joints, the spastic muscular group, thus determining the direction of the contracted position.

In this way the spastic contracture of the hip, knee and elbow joint is produced. This way the spastic club foot and the pronated contracture of the wrist. In the treatment we have two problems confronting us.

1. To correct the deformity.
2. To set aside the changed muscular balance, as the proper cause of the contracture.

At present we have learned, that the correction of the deformity changes contemporarily the muscular balance. So we perform tenotomies on the different spastic and contracted muscles, thus weakening the predominant spastic group of muscles by lengthening them. In this way the muscular balance is restored. Therefore, in the majority of the cases of spastic paralysis, as a rule, the weakening of the predominant spastic muscles should be done by tenotomies and redressment of the deformity. The success in tendon transplantation in cases of spastic paralysis rests on the same principle, the spastic predominant muscle becoming weaker by its transplantation. But the restoration of the muscular balance we easier attain by tenotomy and redressment, whilst otherwise there is great danger of producing an opposite spastic contracture deformity just by the transplantation performed.

It was a very ingenious operation, I relate to the "Foerster" operation, in which he relieved the muscular spasm by putting out the sensory part of the reflex bow. The sensory bilateral roots of the I, II, III, V Lumbar; I, II sacral nerves, the secondary roots of the IV, V, VI and VIII with the first thoracic nerve presented by laminectomy are resected, thus relieving the muscular spasm by the interruption of the reflex bow. But, the "Foerster" operation is to be used only in very selected cases of spastic paralysis. In cases, with complete general stiffness of all muscles of the body. In the majority of cases, however, one will have a very satisfactory result



just by performing a tenotomy with redressment.

When dealing with an isolated spastic paralysis, resection of the peripheral motor nerves supplying the respective spastic muscular group may be performed.

Multiple spasticity, anetosis and intellectual defects are contra indications.

Otherwise in spastic paralysis resection of the peripheral nerves may be performed as shown in the example of a pronated contracture of the arm and the spastic pes equinus. A mild or severe grade of spastic paralysis of the pronator teres being present, the branches supplying the caput humeri ulnare must be resected, the branches supplying the palmaris longus and the flexor carpi radialis must be cut through either in half or completely.

In the case of equinus the resection of the branches supplying the gastrocnemius muscle and the soleus muscle must be cut through.

In performing the above mentioned operations one must be perfectly familiar with the anatomy of the peripheral nerves in detail. On the other side we gained a great deal of knowledge relative to the physiology of the peripheral nerves in the repair of traumatic cases, which has lead us to the remarkable fact that the peripheral nerve is not an original entirety, but consists of several separate parts of single paths of nerves, being situated in the transversal cut of a nerve always so regular that one must speak of an inner structure or topography of the peripheral nerve.

For instance a transversal cut through the sciatic nerve above the knee joint shows that a certain nerve filament belonging to certain muscle groups are always located anatomically the same within the transversal main trunk. Therefore operating on the peripheral nerves in repair of injury one must analyze the nerve in its bundles one by one, dissecting the reach of the scar. The complete nerve must be analyzed and dissected in its elements. This procedure is named endoneural neurolysis.

A larger defect being present the operator may use the following methods. I. The direct union with a temporary stretching of the nerve. The scar is removed for instance, a

large defect of the median ulnar and the musculo spiral nerve in the sulcus bicipitalis being present. Flexing of the elbow allows approach of the nerve endings of the distance of about two and a half inches. In this position the nerve will be fixed with sutures placed through the fibroid end of the nerve without incising them. The wound is closed. The elbow will be stretched gradually in the next few hours. After three days the wound is opened. In flexion of the elbow the ends of the nerves can be easily approximated and after excision of the fibroid ends are sutured.

II. In other cases one may use the displacement of the nerve. The ulnar nerve above the elbow joint being thickened and fibroid after resection the defect is corrected by displacing the nerve by tunneling through the muscles on the volar side of the arm thus changing the course of its path. Sometimes a transplantation of a nerve is necessary. Transplantation being indicated not only under the conditions already mentioned but in cases of loose or spastic paralysis with partial or total functional deficiencies. Methods of transplantation of nerves are: I. The lateral position and uniting with a laboring nerve. II. Crossing the nerves. Complete or partial union of paralyzed nerve with the normal one. III. The implantation. The implantation can be ascendent: The paralyzed nerve is cut through and its peripheral end is sutured to the normal nerve. Or the descendent one: A normal nerve is cut through and its central end is transplanted in the paralyzed nerve. The ascendent and descendent can be a total or a partial one, the whole nerve or branch being transplanted. The method of choice is the ascendent implantation because of injury to the power spending nerve in doing a descendent implantation: Apart from the fact that in the latter case just a sensory part can be used.

The technique of a descendent implantation is as follows: The nerve is cut through transversely. In addition to this the inoculation cut is done perpendicularly for situating the nerve interstitially. Then the transplanted nerve is situated in the furrow prepared for it and the freshened axis cylinders united.

The classical example of a descendent trans-

plantation is the transplantation of a parcel of a musculo spiral into the path of the axillary nerve. In the case of paralysis of the deltoid muscle for instance, the axillary nerve and the musculo spiral are dissected, one bundle of the latter being separated. Whatever method of transplantation is done one should not forget that in the cross section through the nerve the single paths are always situated in a certain arrangement. The typical example of an ascendent transplantation is the one of the inferior gluteal nerve into the sciatic nerve. The gluteal maximus muscle being paralyzed. This muscle is cut through and the muscle pyramidalis is seen with the superior gluteal nerve in its inferior margin. Further the sciatic, the posterior cutaneous femoris nerve and the inferior gluteal nerve. The sciatic nerve illustrates a division in different bundles on the lateral side the path of both the peroneal nerves next to the lateral cutaneous sural nerve then the path of the tibial nerve and sacral nerve of the flexus of the knee.

The methods of operation until now intended to correct the functional deficiencies of motor nerves. But there is no doubt that our efforts should likewise be turned to the operative treatment of the diseases of the sensory path of the hip nerve, generally known under the name of sciatic disease. It has been shown to us by the well known investigations of Stoffel that the sciatic nerve is not one of the same kind but consists of sensory and motor elements which are always situated in a distinct order in the transversal cut of the nerve. What we term sciatica can only be a disease of the sensory paths in a mixed nerve. The sensory paths of the lumbar plexus are, the posterior, cutaneous femoris nerve, the median sural nerve, the lateral sural nerve and the intermediate sural nerve.

It is possible to separate these paths dissecting the nerve from the peripheral ends up to the sciatic foramen and one can demonstrate them as distinctly isolated groups of bundles with their distribution. The different diseases of the hip nerve generally named sciatic disease can be analyzed as a localized inflammation of one or several of the sensory

paths above mentioned. With a very exact examination of the patient one will usually be able to localize a so-called sciatic disease in the paths of the posterior cutaneous nerve, the median or lateral sural cutaneous nerve. This localization enables us sometimes to draw the course of the nerves with a pencil on the skin of a patient from the ankle upwards to the hip joint. Sometimes many of these paths are diseased.

Therefore it is possible to resect the sensory paths in certain cases in which a distinct localization of the disease is made. The resection is made after mobilizing previously the course of the nerve. This mobilization should be done to an extent of 15cm. The peripheral and the central ends of the nerve being pulled out it must be avoided not to operate on hysterical patients and on cases with uncertain localized pain in the legs or hip joint. Otherwise operating in only the proper and selected cases one will have excellent results without recurrence.

The technique of the operation is not difficult because of the possibility of isolating the disease paths very easily. The lateral cutaneous sural nerve can be isolated as high up as to the gluteal maximus muscle. The median cutaneous sural nerve up to the middle of the femur up to its anastomosis with motor supply for the triceps surae easily being dissected. The two sensory paths of the median and lateral sural nerves amount to a remarkable part of the whole hip nerve.

The different methods of operation on the peripheral so far mentioned has lead us to the close relationship to the neurologist as the investigations and knowledge of the mixed nerves is added to their credit. They have shown us that the single peripheral paths of the nerves are corrected to one chief nerve, having situated the single paths not only separated but always at the same phase of the physiological transversal cut through the nerve.

—————R—————

Lawyers thrive on the clients' ignorance of the law. Doctors thrive on patients who ignorantly or knowingly acquire a perverted appetite and use it.



**BELL MEMORIAL HOSPITAL CLINICS****Clinic of Dr. A. L. Skoog, M.D.****Neurological Department****A CASE OF SPINA BIFIDA**

Baby B, female, was admitted to the Bell Memorial Hospital on February 20th, 1922, the patient having been born three days earlier.

Dr. Singleton who referred the patient informed me that there was nothing remarkable in the delivery which was without instruments. The weight at birth was six pounds. The spinal defect was noted at once. Circulation and respiration were good even during the first few minutes. Nourishment was taken well right from the start. No excessive crying. While the baby remained at home the extremely thin membrane over the defect was noted but did not rupture at any time. There is one other healthy child, age two years. The father and mother are somewhat under par, but have no particular diseases nor physical defects.

In the neurological examination one is immediately struck by the small size of the head and other defects. The circumference of the skull was twenty-three centimeters. All the fontanelles were excessively large. There was a delayed closure of all the sutures. Especially did we have an unusually wide separation of the parieto-occipital sutures. The frontal bones slope backward excessively and have a marked depression on each side toward the temporal region. No unusual bulging or tension could be detected at either the anterior or posterior fontanelles.

The pupils are equal and react to light. Nothing abnormal can be determined in the discs. Especially is there no optic atrophy. There is a striking difference in the size of the two eye slits, the left not being opened as wide as the right.

In the motor system may be observed movements of the head, trunk and arms in possibly a normal manner. During repeated observations no movements at the pelvis, knees, ankle joints or toes have been observed. Some spasticity at the knee and ankle joints continues. The legs can not be extended fully at the knee joint. The ankles can be flexed

readily but the foot can not be extended beyond a right angle with the leg. The toes are well developed. The upper deep reflexes are present and about equal. The patellars and Achilles have been consistently absent. No Babinski or Oppenheim or planter reflex can be obtained. No abdominals have been elicited.

The baby has given evidences of perceiving painful impressions in all the metameres above the tenth dorsal cord segment. There has been probably feeble or no sensation below the eighth dorsal cord segment. Trophic disturbances have been observed in the lower extremities, suggested by the frequent bluish color and the coldness of the lower extremities as contrasted with the arms.

The cervical and dorsal spine appears normal. Over the fourth and fifth lumbar vertebrae and upper sacrum is a large rounded bony defect four or five centimeters in diameter. Over it is a decided tumefaction. This is covered by a thin bluish membrane which contains a goodly quantity of mobile liquid which seems to be spinal fluid and has a tension which varies from time to time. Cauda equina or nerve roots are suspected to be present but can not be demonstrated positively. The thin membrane is surrounded by a membrane granulosa which shades into the normal skin of the back.

A diagnosis of spina bifida of the myelocystomeningocele type has been made. An extremely bad prognosis was given to the physician, which was fully appreciated by the parents. Small spinal fluid oozings from the membrane were observed during the first week. Granulations were gradually developing over this membrane. Consultations were held with the pediatric, the surgical, the medical and the radiographic departments. None encouraged an operation. I could not advise an operation for the spina bifida in view of the added brain defects. The baby is a microcephalic with a marked internal hydrocephaly. There is a possibility that other developmental defects which can not be demonstrated clinically at this time, might be shown by an autopsy.

On April 8th, I did a ventricular puncture through the anterior fontanelle region. The

needle was introduced through the right side about two centimeters from the median line. Fluid from the cerebral ventricles was obtained at a depth of about two and one-half centimeters. After removing one hundred and ten c. c. of the fluid, one hundred c. c. of air was introduced into the ventricular cavities. Immediately following this, x-ray plates including anterior, posterior and right and left lateral views were made. All ventriculograms show great dilatation of the lateral and third ventricles, which indicates a corresponding thinning of the cerebral mantle.

The course up to May 16th, has been uneventful. There has been no spinal fluid oozing from the defect for a long time. The

serious embryological developmental defect. The vast majority occur in the sacral region. However, no portion of the spinal column is exempt from this possible deformity. A common division is into the meningocele which is the least serious of the group, myelomeningocele, myelocystocele and myelocystomeningocele. The prognosis for the last three types is extremely bad. Perhaps surgical relief should not be attempted for any of these.

In a group of six hundred and forty-nine cases which were reviewed by one authority it was found that six hundred and twelve had died during the first year; and the majority during the first four weeks, with a rupture of the membrane and a meningitis. When spinal fluid begins to percolate or flow



Illustration 1: Spina bifida tumefaction seen over lumbosacral region.

lesion now is covered with an irregular nodular granulating membrane. Some thin spots with palpable fluid are visible. An excessive amount of hair may be observed growing in the marginal skin. The motor, sensory, reflex, and trophic conditions in the lower extremities remain about the same. The head continues small. The fontanelles and sutures are closing slightly. The eye slits remain unequal.

#### CONCLUSIONS

The prognosis for this patient remains about the same at this date as contrasted with what it might have been for a similar condition some years ago. If the baby could have the spina bifida cured, there still remains the serious brain defect to be considered. It is not believed that the child can become anything excepting an imbecile should it live even a number of years.

Spina bifida always should be considered a

through this thin covering, it is quite difficult to prevent infection of the meninges. Occasionally additional developmental defects are encountered, usually making the prognosis graver. Club feet are observed frequently. Defects of the head and brain are the most common. While there are no encephaloceles in my case, yet there is a very evident serious defect in the development of the brain. This is demonstrated by the excessively small size of the head, the thinning of the cerebral mantle as shown by the ventriculography, and the abnormal conduct of the baby.

The radical treatment of the condition consists of an eradication of the sac, and the closure of the bony and skin defect by plastic surgery. However, we probably are justified in advising such procedures in only a small percentage of the cases. Unfortunately many of them have multiple defects. It is ex-



tremely difficult to deal surgically with one in which roots or nerves are found in the sac. Where a defective spinal cord exists, it is probably unnecessary to consider any kind of a surgical procedure.

Finally I wish to close with a few words on spina bifida occulta. This a milder type without skin defect and often with no change in

the lumbo-sacral bones. Pathological changes in the meninges, cauda or lower portion of the cord are found in varying degrees. An unusual hirsuties often indicates the location of the deeper deformities. It is interesting to note that the case described above has begun to show lately an abnormal growth of hair in the lumbo-sacral region.

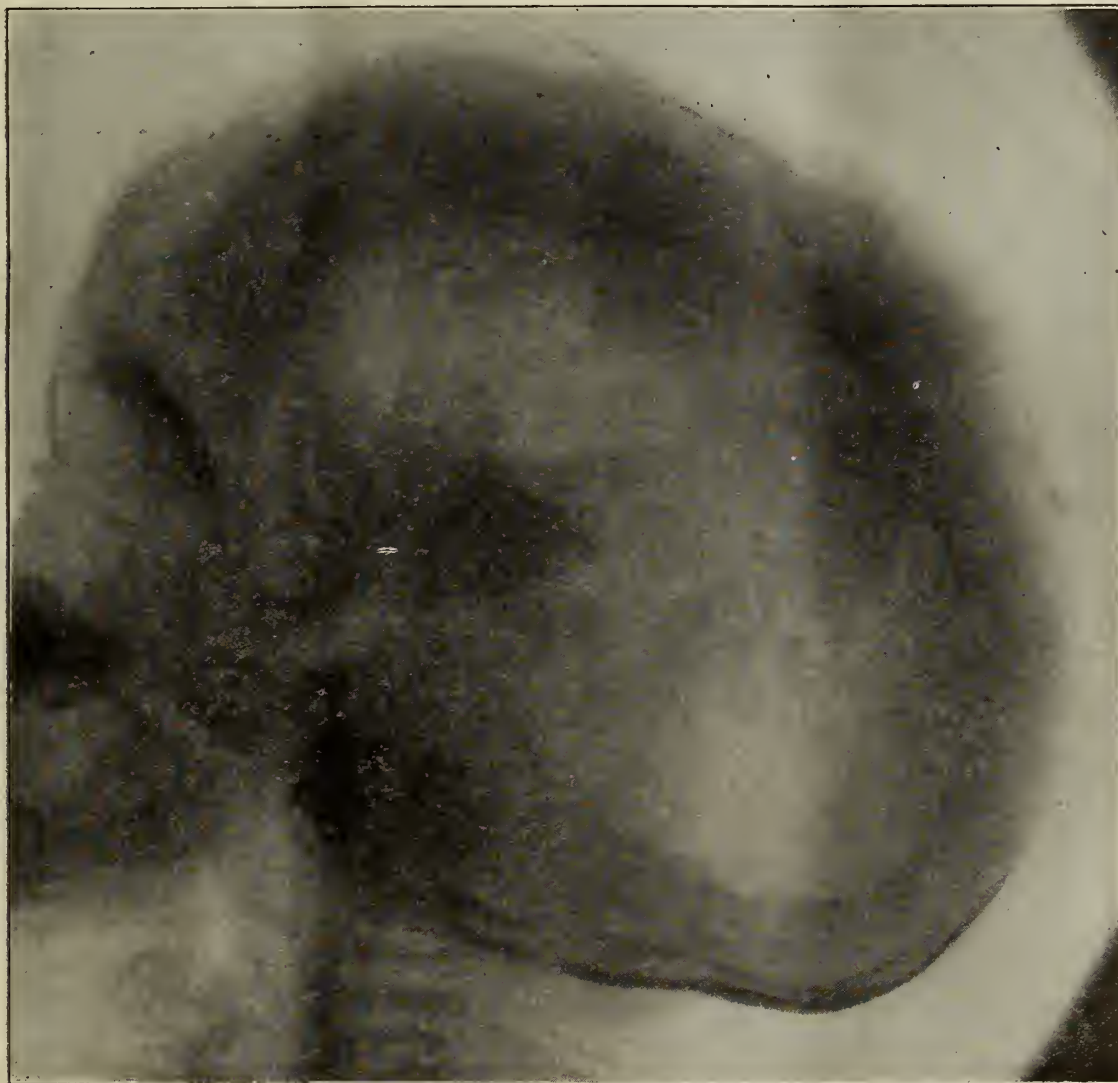


Illustration 2: Ventriculogram showing great dilatation of lateral and third ventricles.

Prescribing medicine for the sick is one of the duties of the physician. Before he prescribes a drug for a patient he should know what the disease is. He makes a correct diagnosis of the disease in about one-half of the number of patients he is called upon to treat. When in doubt he prescribes a placebo

and waits developments. During the "awaiting interval" his time can be profitably spent in studying the sanitation, dietetics and psychology of his patient, and govern himself accordingly. There are more patients who need the latter care, direction and suggestion than there are those who need drugs.

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### Deadhead Practice

At varying intervals it has seemed appropriate to call attention in these columns to the very large economic loss to the medical profession occasioned by its attitude toward the deadhead class of patients. The percentage of deadhead business is entirely too large, larger than any other business could possibly survive. This subject has been discussed from several viewpoints, but the following letter suggests still another line of argument:

MY DEAR DOCTOR:

The woods are halfway full of a lot of medical deadheads, who, year after year, deadhead their medical services. The secret of the matter is that we still have a percentage of doctors who never have been within speaking distance of keeping up with their profession and are afraid that if they do not bid for the friendship of such people they will lose out in practice. Thanks to the fact that they are getting scarcer every year and to the fact that the intelligence of the people is teaching them that the doctor whose cheapness is his main medical asset is not only an expensive but a dangerous attendant at the bedside of the sick.

Again it is an entire mistake to suppose that the influence of the contemptible deadhead is influential. So far from being so, it is a reflection upon and a damage to the doctor's reputation and their practice means an empty purse and premature old age. The only way to escape them and their ruinous

policy (professionally and financially ruinous) is to adopt a policy more or less like that adopted by me some ten years ago. Simply refuse all such services except for cash in advance, with the plain statement that you do no deadhead practice. If they become displeased, add that such practice is a loss to the doctor and that such influence is damaging to his reputation. Since then my loss in practice has been about ten per cent and my earnings better, with much less hard work and expense. Every poor man is not an object of charity. Most deadheads are educated into becoming so by the cheap-John doctors themselves. Let them assimilate enough sand and self respect to give such patrons to understand that it is not a question as to what they think of the doctor but as to what the doctor thinks of them. It is surprising how promptly the attitude of these parasites is reversed and as the months go by a fair per cent are proud to become cash patrons. The doctor whose success depends upon the influence of such people has not a great distance between him and professional and financial bankruptcy.

Send statements promptly to all who are not habitually prompt. Become acquainted with the name of the man who changes his doctor with his last doctor unpaid. If you look him up carefully you may find that there is more than one still unpaid. Self-protection demands that the doctor becomes a much better business man in the future than he is in the past. X. Y. Z.

One who has investigated thoroughly will hardly admit that only those who are behind in professional attainments seem to cater to the deadhead element, for in many localities the most frequent victims of the parasites are among the men of large practice and unquestioned medical ability, and especially is this the case with the older men in the profession. Men who were trained under the old regime, when sentiment was the controlling incentive, when it was considered that a physician's duty was to heal the sick and the fee was only an incident. At least one may offer that as a very considerate excuse for their lack of good business sense. But there are some who do really cater to the deadhead business in order to be busy, on the theory that to be busy is a good recommendation to the public. And, unfortunately, the people



are inclined to regard the busiest doctor as the best doctor. When the doctor begins to realize that he is falling behind in his work because he has been too busy to keep up with the advances in medicine, his best patients have also discovered it and when he gets rid of the deadhead business he has no business at all.

To eliminate deadhead business entirely seems almost impossible. Deadhead business is an inclusive term, for under this head must be put the gratuitous services rendered to members of the profession, their families and dependents; gratuitous services to the minister of one's church and his family, and sometimes the ministers of several churches; the poor whom we have always with us, and, for the present one may admit that it is the duty of the doctor to care for their ills; then there are the deadbeats who employ one doctor as long as he will respond to their calls without pay, but when his importunity becomes embarrassing they discharge him and get someone else.

Practically every reputable physician has some deadhead business. Every reputable physician will regard it, not a duty or obligation, but a privilege to render his professional services to a brother practitioner or his family. The gratuitous service to the clergy will be determined by sentiment, custom or policy, but seems quite unnecessary when the recipient of such service is sufficiently well paid by his congregation. Gratuitous service to the poor is an economic error, in that one assumes an obligation which belongs to society in general. Caring for the sick poor is not an obligation to be carried by one class of society but by all. It is doubtful, however, if the medical profession ever will, if it can, relieve itself of this burden.

The deadbeats, the fellows who can but won't pay, deserve no consideration. There is no obligation, no sentiment and no policy justifying the inclusion of this class in any physician's deadhead practice. The deadbeat should be eliminated and by the co-operation of the members of the Society he will be. The difficulty is to know them, and this is one of

the purposes of the Credit and Collection Bureau which is steadily accumulating a list of these people for the benefit of the members of the Society.

—————R—————

### Medicine by Resolution

On the strength of a referendum conducted by The Journal of the American Medical Association covering 54,000 and indicating that "51 per cent of physicians consider whisky 'necessary' in the practice of medicine," the following resolutions were recommended by the Reference Committee on Legislation and Public Relations and were adopted by the House of Delegates at the St. Louis meeting.

WHEREAS, The medical profession has been subjected to criticism and unfavorable comment because of present conditions associated with the enforcement of the Volstead law, and

WHEREAS, The results of a referendum conducted by The Journal of the American Medical Association, covering 54,000 physicians, indicates that 51 per cent of physicians consider whisky "necessary" in the practice of medicine, and

WHEREAS, The dosage, method, frequency and duration of administration of this drug in any given case is a problem of scientific therapeutics and is not to be determined by legal or arbitrary dictum, and

WHEREAS, The experience of physicians, as reported in The Journal, indicates that the present method of control, limitation of quantity and frequency of administration, licensure and supply of a satisfactory product constitutes a serious interference with the practice of medicine by those physicians who are convinced of the value of alcohol in medical practice, therefore be it

*Resolved*, that the House of Delegates of the American Medical Association, in convention assembled, representing a membership of over 89,000 physicians, appeals to the Secretary of the Treasury and to the Congress of the United States for relief from the present unsatisfactory conditions, and recommends that provisions be made for supplying bonded whisky, *for medical use only*, at a

fixed retail price to be established by the government.

The resolutions have an apologetic sound that tempts one to wonder what would have been the action of the Committee if, instead of 51 per cent, only 49 per cent of physicians considered whisky "necessary" in the practice of medicine. Since the vote of the House of Delegates is not given one may only wonder of the majority vote for the resolution would have been less if the committee had not recommended the resolutions.

The point is that a question of this kind, where the value of a remedy is concerned, as well as its availability, is determined by the (indicated) opinions of 45,390 of the physicians represented by the American Medical Association, at least that seems to be implied by the wording of the resolution.

We wonder if in all the history of medicine there is any other drug or remedy whose value has been determined in this way.

----- R -----

### Why Penalize the Sick

The prohibitory amendment to the constitution seems to permit the inference at least, that alcoholic liquors may be of some useful purpose other than as beverages. The Volstead law also recognizes the legitimate use of alcoholic liquors in medicine. The recent canvas of medical opinion by the American Medical Association showed that a majority regarded whisky as a necessary remedial agent in the practice of medicine. It would seem then that the consensus of opinion is that alcoholic liquors should be made available for use in the treatment of the sick.

The government authorities have long ago recognized the importance of alcohol in industrial pursuits and have arranged for the free and unregulated sale of alcohol which has been "denatured" by the addition of substances that would render it unfit for use as a beverage. Denatured alcohol is sold and used for many purposes in the common industries and sold free of tax. If alcohol is required for external use for sick people for bathing purposes, the ordinary denatured

alcohol will not do and a special formula for denaturing is used, but this is not sold tax free. Denatured alcohol may be bought at from 75 cents to \$1.00 per gallon, but denatured alcohol for bathing purposes sells for \$1.00 per pint. We are informed that in the states where whisky may be sold on physicians' prescriptions it cost the purchaser \$4.00 per pint.

While the revenue tax on alcohol and whisky is a considerable item it is not sufficient to justify the difference in price between denatured alcohol for industrial purposes and denatured alcohol for use in the sick room and for the price charged for a pint of whisky for medical use. But why should there be a tax on alcohol or alcoholic liquors for medicinal use? All the arguments for sickness insurance are based on the economic loss which sickness causes and the extra burden which it imposes upon the wage earner. If whisky is a medicine, and can only be sold for medical purposes, it is incompatible with the best principles of economics to impose a tax which only sick people are required to pay.

----- R -----

### Reflections by the Prodigal

THE HUMAN MIND.

"There is no such thing as mind. The mind is made or in the making." So says James Harvey Robinson, lecturer in the New School for Social Research, sometime Professor of History in Columbia University. Steadman's Medical Dictionary says that mind is the organ or seat of consciousness, remembering, reasoning and willing. Webster says by the mind of man we understand that in him which thinks, remembers, reasons and wills. Mind may be described as the sentient subject of all feeling; that which has or feels them.

Robinson says the mind is made. The definition of mind as given by the dictionaries, while not satisfactory, suggests the idea of mind being an entity, a something, a creation coexistent with life itself. We believe that there is a potentiality for growth and de-



velopment of this intangible something called mind, in every human being, the same as the germ in the acorn, the germ being capable of becoming or growing into an oak tree when conditions essential to its growth are present.

The probability is that mind is a form of energy, and in its different psychic manifestations and permanency has its counter-part in the chemical elements entering into the formation of matter of the earth on which we live.

Chemistry is said to be an exact science. In the past it has taught that there are about 88 different elements entering into the composition of the earth. Since two or more of these elements have been fused into one element, chemists are given a hint that there may be but one element. And these so-called elements after all are probably but different manifestations of one element—energy. What energy is in its essence is not known. What energy does is known and what electricity does is known. What mind is, is not known, but its manifestation is known.

The brain is the organ, body or substance in, on, or through which energy transmits, or makes known, consciousness. In the words of the late Dr. R. E. McVey, whose intellectuality was equalled by few, the brain being a physical structure, through which consciousness and intelligence are expressed, the degree of consciousness and intelligence will correspond to the character of the nutritive supply it receives. That the cells of the brain should (be sensitized to) feel, become erect, act, think and associate themselves for co-ordinate action, they must be supplied not only with blood, but with blood containing the phosphorized elements which support and build up a picture-forming surface. The presence of phosphorus in the brain makes it a picture gallery where external sensitive excitations are transformed into memories, and recorded to be reproduced by similar excitations. Consciousness may be regarded as a physiological synthesis of all the activities of all the various nerve elements in harmonic transformation of all external excitations.

The consciousness within the brain, engendered and developed within its structure, is maintained by the bathing of its sensitive elements, the cells, with blood rich in phosphorus. The faculties of the mind (different manifestations of energy) being potential (like the germ in the acorn) in the protoplast, the nervous tissues are developed by physical and chemical changes (energy) in the cells of the brain. By potential cell is meant one capable of doing or being; possible but not actual. Hence if all of the so-called physical elements prove to be one element—energy, it is colorful reasoning, that these apparent different manifestations of mind are the result of one engendered impulse—energy.

#### UNREST.

The cause of unrest in man's physical body is lack of harmony in its going mechanism. Man being dual in his make up complicates its working twice more than an inanimate machine. Another complication with which man has to contend, more than in the inanimate machine, is the other dual machine he comes in contact with and mix ups in the daily grind. This contact, mixing up or relationship is more intimate and specific in its workings in the medical profession with human kind than it is in any of the other learned professions.

Hence there is greater friction between the medical man and the laity; and the friction or unrest is increasing. The proof of dissatisfaction with the regular medical profession is the increase in cults. Also by the medical men in the regular profession having to band themselves more closely together in association, with politics gaining the ascendancy, for self protection.

The unrest or dissatisfaction of the people with the present conditions and practice of regular medicine is to be looked upon as a good omen. It is encouraging to the worth while medical man. The people want something more and better than the regular profession is giving them. They are not satisfied with our view point and practice. Their unrest is a pressure bearing down on the medical man and makes him think. Opposition

is the sword of progress. We do not learn from people who always agree with us. Progress is made by the heretic, the disbeliever, the man who thinks that social and professional conditions are not fixed and perfect. The worth while medical man brooks opposition. He expends some of his energy and effort in finding out if the other fellow's opinion is correct, instead of finding arguments for going on believing as he does." In this way "new ideas are worked up and then put over."

These new ideas in opposition to his own act as tonics, stimulants, irritants, and agitate him until he slops over or consumes the deleterious foreign matter (false ideas) in his thinking, and he is purified intellectually, professionally and practically the same as the smelting of the quartz frees the gold. It is the method outlined by nature and her laws cannot be ignored or set aside successfully in progression.

We conclude then that the regular medical man has nothing to fear from the agitation and unrest present among the people respecting his practice, if he recognizes the conditions with an open mind and brings his open mindedness up to date, and keeps it in the fore front. But he must keep himself in such an attitude of mind to think right and to "think of things he never thought of before," and govern himself accordingly.

#### IDIOSYNCRASY.

"Idios, one's own, and synkrosis, a mixing together." The word is congeneric with the word hysteria in diagnosis, both being blanket words. They are used as a cover for our ignorance. There is no sin in our using these words, at the proper time, if we have done our best. We use them for our protection and the good of our patient. We say them when we do not know what else to say. They serve a good purpose when we use them honestly and intelligently. They are an oasis for us in the professional realm of the unknown. The words satisfy our patients and ease us down without a jolt. They give us time to think. To the laggard it is the end. To the progressive physician it is a means, a resting place to begin again and continue the fight,

a stimulant urging him on to find out what he does not know. It seems to be a contraindication of a natural law. Poison to one man and an antidote to poison in another man. Death to one and life to another. The following reported cases are typical of idiosyncrasy.

The Pathfinder reports one "Harry Collard, a farmer of Pinebrook, N. J., who was stung by a bee. A few minutes afterward his face became paralyzed and he died before a doctor came." The fluid injected by the sting of the bee is said to be formic acid.

A patient came under the observation of the writer some thirty years ago who had to quit farming on account of rheumatism. Physicians gave him but temporary relief and the disease grew gradually worse, finally disabling him from field work. By accident he was stung by several bees at one time and at two or three intervals within a few days, and he felt better after each stinging. He took the hint and turned bee keeper, and was cured of his rheumatism by permitting the bees to sting him at intervals for several months. On questioning him (about two years after he began keeping bees) he said occasionally his knee would get a little "achy" and his thumb joint swell a little when he would take a dose of bee sting and get relief.

The formic acid killed the New Jersey farmer but it cured a Kansas farmer. An old physician in Topeka many years ago told the writer that if he ate a dish of strawberries he would break out in a red rash all over his body—idiosyncrasy. Moral: A bee sting kills a clam eater but cures a jayhawker.

(a) Not knowing the why of idiosyncrasy the medical man must not rest content until he finds out the answer.

—————R—————

#### X-Ray and Clinical Findings in Normal Chest of Children—6 to 10 Years

National Tuberculosis Association Medical Research.

The National Tuberculosis Association sometime ago began a new and important phase of its work in an attempt to increase the quantity and character of research work



in problems related to its own field in the United States. For this purpose it appropriated \$20,000.00 and appointed a small committee composed of Dr. Wm. Charles White, Medical Director of the Tuberculosis League of Pittsburgh, Dr. Paul A. Lewis, Director of Laboratories of the Phipps Institute, Philadelphia, and Dr. Allen K. Krause, Director of Kenneth Dows Research Fund, Johns Hopkins Hospital, to expend these funds to the greatest advantage.

This committee decided that the best use of these funds would be in assisting researches already under way that held the greatest promise of increasing the practical knowledge of physicians dealing with tuberculosis. This, they considered, would bring the greatest help to those suffering from tuberculosis and the greatest boom to the public from whom the funds were collected. This plan has been carried out in co-operation with the universities.

One of the researches was an effort to establish the x-ray and clinical findings in the chest of a normal child up to ten years of age. For this problem the National Tuberculosis Association nominated the following groups of roentgenologists and clinicians.

Dr. H. K. Pancoast and Dr. H. R. M. Landis, University of Pennsylvania.

Dr. F. H. Baetjer and Dr. C. R. Austrian, University of Johns Hopkins.

Dr. H. K. Dunham and Dr. K. D. Blackfan, University of Cincinnati.

The signed reports of these physicians is here presented in two sections with the hope that they may promote a discussion which will be fruitful in establishing the truth in these two fields.

*Report of the Clinical Division of the Committee on Medical Research of the National Tuberculosis Association.*

The value of Roentgenography in determining the presence of pulmonary disease has long been recognized. Studies to determine the roentgenograms of various pathological lesions of the lung have been almost without number, yet much difference of opinion exists in the interpretation of findings, largely because no satisfactory observations have been

made establishing the variations that may occur in the normal. To one observer, shadows noted are indicative of disease; to another, they are not evidence of a pathological process; to one, they represent lesions of clinical significance; to another, they suggest changes of no moment. The realization of this unsatisfactory state of affairs was widespread but it remained for the Research Committee of the National Tuberculosis Association seriously to consider it and to set about to correct the shortcomings.

In the spring of 1920, that Committee called together the collaborators in this work and instructed them to set about in ways of their own choosing to solve the problem, extended to them a financial grant and in order that the problem might be a very definite one, asked that the immediate study be limited to a consideration of the chests of normal children between the ages of 6 and 10 years. The work was begun promptly and a preliminary report was made at the annual meeting of the Association in May, 1921. The findings at that time were incomplete and because of the then limited observations, no very definite conclusions were drawn. However, the practical need of a solution of the problem was apparent. Study was continued throughout 1921 and the first four months of 1922, and the data independently assembled were jointly discussed to evaluate them. Although each pair of workers carried on its investigations without intergroup consultation, although each approached the subject from a different angle and when first met held views apparently not altogether in accord, it was agreeable to find that an exchange of conclusions disclosed almost an unanimity of opinion. The findings of these six observers—three clinicians and three roentgenologists—are presented to you for your consideration:

Theoretically, the normal child is one of ideal height, weight and development for his age, without subjective or objective evidences of deformity or of disease and without residual changes due to antecedent pathological processes. Practically, a normal child is one of average height, weight and development

for his age, symptom-free and without signs of disease. Each such individual, in more or less relation to his age, will have been ill more or less often and as a consequence may be expected to show variations from the ideal, not because of present disease, but as a result of residual changes that persist. An appreciation of these facts makes it apparent that the findings, clinical and roentgenographic, in normal children as we meet them will vary greatly from any fixed standards and still must be considered as variants of normal.

The clinical data dealt with in this report were obtained by careful examination of apparently healthy children between the ages of 6 and 10 years. All children who showed signs of disease were excluded from the series. Individuals from various strata of society, foreign and native born, residents of urban and of rural communities, school children and children residing in institutions, children exposed to tuberculosis and some without a history of such exposure, children with and without a history of previous infectious diseases, all symptom-free, and of an approximately normal height and weight for their ages, were studied. A history of each individual was recorded and in making the examinations of the chest, care was always observed to have the child relaxed and to see that no cramped or unnatural posture was assumed, for, as is well known, faulty position may lead to findings that cause confusion in interpretation. In addition, a tuberculin test was made on every child. The clinical data were then assembled and after the roentgenologist had interpreted his plate independently, the clinical and roentgenographic findings were correlated.

In all, over 500 children were thus studied and as a result some definite conclusions seem warranted.

As in the adult, so in the child vocal fremitus is more marked over the right upper chest than over the left.

It is generally stated that the percussion note elicited over the lungs of normal children within the age limits under consideration, is fuller, more tympanitic, of higher pitch and more resilient than that noted over those of

adults, and that frequently the tympanitic quality is quite outspoken, especially over the lower lobe of the left lung. Although in general our observations confirmed this view, we have been impressed by the fact that in an appreciable number of such children, the note obtained on percussion over the lungs is indistinguishable in quality from that elicited over the lungs of normal adults and that the usual resilience of the note is lacking. These findings in many instances have an analogue in shadows noted in the x-ray films, shadows indicative of increased density along the bronchial tree, similar to those seen in the plates of normal adults. This correlation of the findings on physical examination and on x-ray study is more constantly possible in studies of the upper half of the chest. When minor changes, similar to those discovered by x-ray examination of the upper lobes, occur in the bases, they usually escape detection on physical examination. In those instances, in which no shadow is found to explain the deviation of the note from the generally accepted one, it is our belief that the lack of resilient quality may be due to a decreased elasticity of the chest wall.

The so-called tympanitic quality of the percussion note over the left base may be increased, decreased or be entirely lacking, depending upon the degree of distention of the stomach or colon, the curvature of the spine, and may likewise vary with the position of the diaphragm or with the posture of the child during the examination. The note over the upper thorax is often the same on the two sides. Kronig's Isthmus averages 5 to 6.5 cm. in width. The lower margins of the lungs posteriorly are at the level of the 10th or 11th rib and descend from 1.5 to 3.5 cm. during forced inspiration.

A just detectible diminution of resonance over the apical regions is of no significance unless associated with a modification of the breath sounds in those areas or with other abnormal auscultatory findings.

It is generally accepted that normally in childhood, the breath sounds have a harsh, sharp character, with expiration longer and



better heard than in the normal adult. This so-called puerile breathing is physiological and though it may seem trite, let it be emphasized that this exaggerated vesiculo-bronchial respiratory murmur, especially well heard in the areas overlying the great bronchi (i. e. anteriorly at the level of the first interspace and the second rib just lateral from the sternal margins, and posteriorly, particularly on the right side, at the level of the 2nd to the 4th spine) is often incorrectly interpreted as evidence of pulmonary disease. An auscultatory finding that has not been pointed out, or at least, has not been emphasized, has come forcibly to our attention in carrying out this study. Just as the full, deep note or higher pitch characteristically elicited by percussion of the child's chest is often replaced in health by a note more like that produced when one percusses the normal chest of an adult, so, on auscultation of a child's normal lungs, the exaggerated or puerile breath sounds may be lacking, and instead the so-called vesicular respiratory murmur characteristically present in adult life is heard. This finding, regarded by us as a physiological variation, has been noted as early as the age of four years and may perhaps occur in younger children. It is more readily appreciated and more often found than the variation in the percussion note just described. In more than 50 per cent of the children in which this type of breathing was heard, examination with the x-ray gave findings like those obtained by a study of normal adult chests. In fact, the agreement of clinician and roentgenologist was so constant that we have come on the basis of these variations to designate the chest of normal children as of "puerile" or of "adult" type. The essential fact to be stressed is that so-called vesicular respiration is heard with great frequency in normal children, and is to be regarded as a variation of normal and not necessarily as an indication of disease.

These variations and those of the percussion note are more generally found in children with a history of infections of the respiratory tract. No satisfactory explanation for this finding is offered. It may be due

in part to altered resilience of the chest wall, a suggestion supported by the fact that in some instances in which it was noted, diminished elasticity of the thoracic wall was apparent on percussion. It may stand in relation to variations of elasticity of the parenchyma of the lung. It may be due to a relative narrowing of the lumen of the bronchial tree. It is hardly to be considered evidence of increased density of respiratory tissue, for, theoretically, at least, that should lead to a modification towards bronchial breathing.

Concerning the whispered voice sounds, little comment needs to be made other than to emphasize their loud transmission often with syllabation over the region of the major bronchi. Auscultation of these sounds over the upper thoracic spine of the children has led to the conclusion that D'Espine's sign as indicative of enlarged tracheo-bronchial lymph nodes is, to say the least, of doubtful value. In 23 of the children, this sign was elicited without other signs of a mediastinal mass and without any corroborative evidence on x-ray examination. In 3, the sign could not be elicited, although from the x-ray plate it might have been inferred that it should be. Eustace-Smith's sign is so generally present in normal children that it is of little or no practical diagnostic worth. The presence of these two signs together with impairment of resonance in the interscapular region is all too frequently made the premises for a diagnosis of tuberculosis of tracheo-bronchial lymph nodes. This is unwarranted for, as indicated, these signs are unreliable evidence of a pathological condition and the determination of a diminution of resonance in the interscapular region requires such a nicety of technic that even masters of percussion disagree as to the presence or absence of significant findings in this region of the chest.

A year ago, in the preliminary communication to this Society, we stressed the importance of the role that antecedent infections might play in the production of areas of increased density within the respiratory tract. (Bronchial tree, parenchyma of the lungs,

etc.) This fact is re-emphasized, for further study has established the importance of it. Not only may recognized or remembered infections of the bronchi and lungs be responsible for alteration in these tissues, but other diseases not ordinarily considered of significance in this regard may be causal of such changes. For example, our observations indicate that after measles, pertussis or tonsillar infections, areas of increased density radiating from the hilum into the bases especially, occur with great frequency. Such lesions generally are not discoverable on physical examination and would be unsuspected but for the use of the x-ray. They are referred to in the clinical part of our joint report in order to point out the need of a careful history as well as examination in all individuals, before proceeding finally to interpret the findings of the roentgenologist. By way of digression, it may be interesting to point out the fact that though measles and pertussis have been known to produce lesions in the upper air passages, involvement of the lower tract has been considered a complication and was thought to occur only when evidence of bronchitis or of broncho-pneumonia were discovered. Our observations indicate that there may be a mild inflammatory process throughout the respiratory passages in a large percentage of the so-called uncomplicated cases of these diseases. This suggestion warrants further study in relation not only to the infections under consideration but also other infectious diseases. That such shadows, mediastinal and basal, noted in children who give a history of uncomplicated measles and pertussis are evidence of healed processes is evidenced by the experience that similar shadows of like origin have remained unchanged and without the development of clinical symptoms in a series of children observed from 3 to 5 years. Such changes must be properly evaluated as indices, not of present disease, but of lesions past and healed, not as warrant for the diagnosis of present illness and the institution of treatment, but as scars of infections met and overcome.

Most of the children included in this study

were tested with tuberculin—some were given a cutaneous test with old tuberculin (Pirquet)—others were tested by the intracutaneous method. (Craig).

The foregoing facts have been detailed at some length to establish the major thesis that, clinically, the ideal, normal child is a hypothetical impossibility. Children, apparently healthy, symptom-free and active, show on careful examination many deviations from fixed standards, variations that must be interpreted as within physiological limits; standards of height and weight must be elastic; measures of resonance and of resilience of the chest must not be rigid and estimates of acoustic phenomena must permit of a range of difference from the ideal. These facts, clinical experience establishes beyond peradventure, and they suggest a corollary, namely, that x-ray examination of the chest of such children may be expected to show comparable deviations from a fixed ideal roentgenogram.

The studies reported, fortified by past experience, warrant the following conclusions:

- (1) The data obtained on percussion and auscultation of the lungs of normal children show wide variations from a fixed standard. These variations are usual and are considered to be within normal limits.

- (2) Inasmuch as the changes referred to are dependent often upon alterations that persist as the residua of past infections of the respiratory tract, it is obvious that a careful anamnesis, with special reference to all infections, is necessary if diagnostic errors are to be avoided. Even a history carefully taken is often unreliable, as minimal infections are soon forgotten by many and among the unintelligent classes even more significant indispositions are not readily recalled.

- (3) Failure properly to evaluate these deviations from a fixed standard will often lead to the unwarranted diagnosis of disease and to even less justifiable treatment.

- (4) With a proper appreciation of the widest variations that the normal may present from the ideal, the informed clinician is better able correctly to understand the findings



of the roentgenologist, and each, co-operating with the other, is less liable to error.

(5) D'Espine's sign as indicative of enlarged tracheo-bronchial lymph nodes is of little value.

(6) Recognition of and familiarity with the foregoing data is of cardinal and practical importance to every patient, potential and established. Without a proper appreciation of the facts set forth, no intelligent differentiation between a normal and an abnormal respiratory tract can be made.

In brief, to establish the presence or absence of disease, it is imperative that all data—clinical, laboratory and roentgenographic—must be evaluated and correlated and that no one fraction of the evidence be stressed to the exclusion of the others.

C. R. AUSTRIAN.

H. R. M. LANDIS.

KENNETH D. BLACKFAN.

*Report of the X-Ray Division of the Committee on Medical Research of the National Tuberculosis Association.*

It is generally conceded that one of the most important factors in accurate interpretation of the appearance of morbid processes in the roentgenogram of the thorax is a thorough familiarity with the normal and variations therefrom within normal limits. With a full realization of this in view the National Tuberculosis Association in 1920 appointed a committee comprising three roentgenologists and three internists to make a study of the normal chest of the child between the ages of six and ten years. This group was instructed to work in co-operation and to make a report of their investigations before the Association when their studies were completed and their conclusions reached. The members selected for the committee were Dr. H. Kennon Dunham of Cincinnati, Dr. Frederick H. Baetjer of Baltimore and Dr. Henry K. Pancoast of Philadelphia to act in the capacity of roentgenologists and to work in co-operation with the respective internists in the same cities, Dr. Kenneth Blackfan, Dr. Charles R. Austrian and Dr. H. R. M. Landis. Each

group of two was to work independently until a satisfactory number of individuals were examined and the entire committee was then to meet and draw their conclusions for presentation. It was to be the duty of the internist in each group by careful clinical study to select as nearly normal children as possible for examination by the roentgenologist. The entire procedure was to be carried out with strict co-operation between the two members of each group.

It was soon realized by the x-ray members of the groups that an attempt to describe a normal chest was practically impossible. Their endeavors soon began to centre around the description of a theoretical normal with wide variations that would serve as a basis for the interpretation of abnormal appearances and tend to preclude the possibility of erroneous diagnoses being based upon faulty interpretations of hilum shadows, trunk shadows and linear markings more or less altered in appearance by the frequent respiratory infections of children. They realized that herein had existed the greatest source of error in interpretation, and no doubt the Association had this same thought in mind when the committee was appointed to take up these investigations. Errors in interpretation have been made chiefly in connection with the diagnosis of pulmonary tuberculosis.

It was the consensus of opinion that children are probably more apt to show definite x-ray evidences in the hilum and trunk shadows of simple as well as serious respiratory infections than adults. Practically all children of the ages of those examined have had at one time or another one or more respiratory infections, especially measles and whooping cough, that are likely to produce very apparent changes in the shadows mentioned and which will remain distinctly visible for a variable period of time. These apparent deviations from the normal are not necessarily abnormal when observed, but may be the harmless results of one or more infections. No doubt such appearances have many times been misinterpreted as evidences of tuberculosis. In the conclusions reached by the committee

the attempt has been able to preclude this possibility.

Many of the general observations made have not been included in the conclusions. One of those perhaps worth mentioning is the fact that the heart of the child is found to extend relatively further to the right than in the adult.

The thoroughness with which the studies were carried out may be in part realized from the number of individuals examined. Over five hundred children were selected from all strata of life, as stated in the clinical report of the committee.

The groups comprising the committee met at the Phipps Institute, Philadelphia, March 3, 1922. Prior to this meeting there were misgivings as to the possibility of an agreement upon any very-definite conclusions, but much to the satisfaction of all the members a definite agreement was reached and the conclusions were completed after a few hours careful deliberation.

To assist in a better understanding of the conclusions of the committee, a composite diagrammatic reproduction of several roentgenograms was made. It must be remembered that the three zones like the chest have thickness as well as length and breadth. Thus the zones extend anteriorly and posteriorly from the lung root as well as laterally.

#### *Conclusions of the X-Ray Division of the Committee.*

*The Normal Chest.* The normal chest of the child from the roentgenologic standpoint is subject to such wide variations within normal limits as to be beyond the possibility of exact description.

*Hilum Shadow.* The conglomerate shadow commonly called the hilum shadow, when found lying entirely within the inner third or zone of the lung area can be disregarded, (or regarded as normal) except where it is made up of a solid mass of homogeneous shadow giving undoubted evidence that it represents a growth or mediastinal pleurisy.

*Calcified Nodes.* Calcified nodes at the root of the lung, without evidence of lung disease,

are of no significance except as a possible evidence of some healed inflammatory condition, possibly but not necessarily tuberculosis. They are a common finding in normal chests.

*Density and Thickness of Trunk Shadows.* In the normal lung the bronchial trunk shadows are not visible in the extreme apical regions. For convenience of description the remainder of the lung is divided into three vertical zones, extending outward from the lateral border of the spinal shadow to the lateral chest border.

The inner zone contains the root shadows.

The mid zone contains the trunk shadows, gradually fading out into their final subdivisions.

The peripheral zone contains radiating lines from these and fading off before the periphery is reached.

Where in the mid zone or peripheral zone, these shadows do not disappear in the characteristic fashion described, the appearance may be evidence of a variety of conditions, past or present, of an inflammatory nature or otherwise. It may accompany a tuberculous process but is not necessarily indicative of tuberculosis.

*Improper or Misleading Terms.* The use of the terms "peribronchial tuberculosis" and "parenchyma tuberculosis" is not to be recommended in the interpretation of roentgenograms of the chest. Until corroborated by laboratory or clinical findings, the use of the terms "active" and "quiescent" should not be definitely applied to evident lesions demonstrated on plates.

HENRY K. PANCOAST.

KENNON DUNHAM.

F. H. BAETJER.

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#### CHIPS

"Skin diseases are on the increase, (J. A. M. A.)" Etiology. More people working at the skin game.

A doctor, to be a real doctor, must *know* something and *do* something worth while.

211 Kansas physicians attended the American Medical Association held in St. Louis in



May, 1922. Of the 48 states Kansas M.D.s were fourth in number. New York state had 147 registered attendance.

Goiter is increasing. Iodine is the preventive and cure all. Iodine was the remedy for goiter 50 years ago. It was applied externally, over the site of the goiter. It colored the skin yellow where it was applied. The patients were called "yellow necks." The iodine is given internally now. Should the patient be called an "Iodex"?

The statement is made by the secular press that more doctors are prosecuted for murder than any other of the educated classes in proportion to their numbers.

"Mary had a little gland, an endocrine you know, and at the base of Mary's brain, this gland it sure did grow. Little gland pituitary, what a change you've made in Mary. Caused her actions all to vary, now that Mary isn't merry." L. A. Record.

Hay fever was first known to the cannibals. They got it by eating grass widows.

Misfortunes never come singly. A "houn dog" fell off the table and broke his leg the other day—down in Arkansaw.

Squirrels in Kansas are going mad, so reads the head lines in the secular press. Accidents to the "houn dog" can be provided against. But Kansas is up against the real thing, not knowing what the squirrels are mad about.

Food wiseacres say that it requires twice as much cooked "water free food" to maintain one in health and efficiency as it does of uncooked food. Is this true? If it is, it is worth finding out and putting into practice.

It is true that cooking does lessen the food value of some eats and destroys the vitamins entirely in others. The question is what others? If we don't know it is our duty to find out.

The sugar consumed in the United States in 1900 was 58.8 pounds per capita and in 1920, 85.3 pounds per capita. Concentrated and synthetic foods are doing their perfect work.

Do thermal peculiarities of the individual determine his best time for study? Some persons can study best at night, others best in early morning hours. Habit may have to do with the best time for one to study. But some persons are dead in sleep in the morning from early childhood to old age while others are equally wakeful. Hence there may be a question of atmospheric pressure affecting the two organisms differently. This is probably the reason that there is no iron clad best time for study, the best time depending upon the constitutional make-up of the individual.

"Success in life depends upon intelligent idleness." It takes intelligence of a high order to spend a vacation from the arduous duties of life, and especially that of professional life, restfully. That one should take a day, week or a few months off each year, he knows and must do so, to keep fit. But to get the most good out of the break off from professional grind, requires forethought, study, and a grim determination on his part to forget his business and to picture ahead in vivid prognostic imagination, and then make it real, absolute freedom from care and responsibility of professional life, to be a boy again.

In some respects the regular medical profession reminds one of the methods of our business men and manufacturers who try to get the Mexican trade. Some years ago the writer visited the west coast of Mexico as far south as Mazatlan. In conversation with a wholesale hardware merchant we asked him where he got his goods. He said from Germany. Questioned why, he said, "You Americans are in too big a hurry. Your traveling men come in on a steamer in the morning and try to get out the same day. The German comes and stays a week or a month. Gets acquainted with us and learns what we want. Your American wants our people to take what you make. The German makes what our people want to take. He introduces new things gradually, educates our people to the use of machinery better than we have. In this way he gets our trade and keeps it. The business

getting and holding is repressed too largely by the cult. The regular medical man by the American.

The appointment of Dr. Ethel M. Watters of San Francisco as consultant in the administration of the Sheppard-Towner Maternity Act is announced by the U. S. Department of Labor through the Children's Bureau. Dr. Watters has been since 1919 Director of the Bureau of Child Hygiene in the California State Board of Health, and is a well-known pediatrician. She becomes a member of the staff of the Federal Children's Bureau, which is charged with the duty of administering in co-operation with the States the Federal funds appropriated for promoting the welfare and hygiene of maternity and infancy. All but six of the States have to date accepted the provisions of the act. In most States the administration will be in charge of the child hygiene divisions of the State boards of health. Plans under which the individual States will administer the funds locally vary with local needs and resources.

Laird W. Archer, of Wichita, Kansas, a relief worker in Alexandropol, Armenia, reported in the cable that at least ten per cent of the children in that district have developed contraction of the limbs, caused by lying with the feet drawn up in an effort to keep warm. In many cases this crouching, which has brought about a shortening of the tendons in the legs, has resulted in permanent deformity, he said.

"Relief physicians have tried to cure these conditions by the use of heated oil, but they have been unable to straighten the legs of scores of children," Archer reported. He estimated that at least 75,000 persons in the Alexandropol district will be naked before the end of summer, unless large quantities of clothing can be brought into the country.

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### Deaths

James W. Jenney, Salina, died June 14, 1922, aged 75, of pneumonia. He was graduated from the Cleveland University of Medicine and Surgery, 1868.

## SOCIETIES

### Riley County Society

The Riley County Medical Society met at the Gillett Hotel June 12th at 6:00 p. m. Following the dinner the meeting was called to order by President C. F. Little. The minutes of the previous meeting were read and approved.

The following members were present—Drs. Clarkson, Groody, Hepler, C. F. Little, B. Belle Little, Reitzel and Colt, Jr.

New business—The matter of the local newspapers advertising traveling "Quack Doctors" was discussed with special reference to a recent article in the Tribune. Moved and seconded by Dr. Colt, Jr., and Dr. Hepler that this society consults with the publishers of such papers and ask that they refrain from advertising such doctors. Motion carried.

#### PROGRAM.

A very interesting paper on "The Relation of the Laboratory to the Physician" was given by Dr. Bushnell and discussed by all members present. Dr. Bushnell was given a vote of thanks for his most excellent paper.

Dr. Reitzel gave an interesting paper on "Diarrhea in Infants." The paper was discussed by all members present. Moved and seconded that the society adjourn to meet (due to the weather) on the second Monday in September. Motion carried.

J. D. COLT, JR., Sec'y.

### Stafford County Society

Society met in St. John Wednesday, June 14th at 3:00 p. m. Members present, W. L. Butler, T. W. Scott, F. W. Tretbar, J. J. Tretbar, Stafford; M. M. Hart, Macksville; C. S. Adams, L. E. Mock, St. John. Miss Hudson, the local red cross nurse, Miss Woods of the State Board of Health and Mr. Warren Ross a medical student were visitors.

The literary program was a paper on "Organotherapy" by Dr. J. T. Scott who dealt mainly with fundamental principles and stated that a new era was dawning in therapeutics the day being not far distant when a new conception of pharmacodynamics would



lift the veil of uncertainty and displace empiricism by substituting scientific therapeutics. Not the least of the agencies bringing this change is organotherapy and increasing knowledge of the glands of internal secretion. Much interest was manifested in the subject and general discussion elicited. The society will not meet during July and August. The next regular meeting will be held in St. John the second Wednesday in September.

Dr. W. S. Crouch, a charter member of this society has removed from Stafford to Spivey, Kansas and the society loses a faithful member. That success may attend him in his new field of labor is the wish of the members of this society.

J. T. SCOTT, Sec'y.

### Sumner County Society

Sumner County Medical met at The Park House, Wellington, Kans., Thursday evening 8 p. m., June 29, 1922. The subject for the evening was Syphilis. Dr. B. K. Kilbourne of the U. S. P. H. service presented a three reel film on "The Modern Diagnosis and Treatment of Syphilis."

T. H. JAMESON, Sec'y and Treas.

### Atchison County Public Health Association

Programme Health Week, May 17-21, 1922

WEDNESDAY, MAY 17.

3:00 p. m.—Parade 3,000 school children. The parade included all Parochial and public schools. The Atchison police and fire departments. King Bo Bo, a clown and the children from the State Orphans' Home.

The following programme was given at the new Soldiers' and Sailors' Memorial Hall:

3:30 p. m.—Orphans Home Children in songs and play.

4:00 p. m.—King Bo Bo, Health clown.

Music during the afternoon furnished by the High School Orchestra.

7:30 p. m.—Concert High School Band.

8:15 p. m.—Dr. L. B. Gloyne, Commissioner of Health, Kansas City, Kans.

8:45 p. m.—Moving picture "Sir Knight Lactis."

THURSDAY, MAY 18.

1:30 p. m.—Examination of babies and children under school age. Clinical advisers Drs. E. T. Shelly, S. W. Connor, W. A. McKelvy.

3:30 p. m.—Dr. Helen A. Moore, Chief Division Child Hygiene State Board Health.

4:00 p. m.—Moving picture "Texas Trail to Your Table." ♪

8:00 p. m.—M. Schumann-Heink (For the Atchison Music Club).

FRIDAY, MAY 19.

1:30 p. m.—Examination of babies and children under school age. Clinical advisers Drs. T. E. Horner, W. F. Smith, G. W. Beitzel.

3:00 p. m.—Double Quartette direction Mrs. N. D. Bartlett.

3:30 p. m.—Drs. A. J. Warren and P. A. Covington, International Health Board. "Full Time Health Organization." ♪  
Music during the afternoon, High School Orchestra.

7:30 p. m.—Concert St. Benedict's College Band.

8:15 p. m.—Dr. J. C. Montgomery U. S. Public Health Service. "Responsibility of the Community in Public Health."

8:45 p. m.—Moving picture "Fly Pest."

9:00 p. m.—Radio concert—Courtesy Carl Latenser and K. C. Star.

SATURDAY, MAY 20.

10:00 a. m.—Moving picture "How Life Begins."

Dr. B. T. Kilbourne, Chief, Division Venereal Diseases, State Board Health.

Examination of babies and children under school age.

Clinical advisers, Drs. E. T. Shelly, C. P. Elder.

12:00 a. m.—Twenty air planes Ft. Sill, Okla., will fly formation over city.

1:00 p. m.—Examination of babies and children under school age. Clinical advisers, Drs. M. T. Dingess, W. K. Fast, E. W. Emery, A. E. Ricks, P. A. Brown and Dr. J. M. Allaman, St. Joseph, Mo.

3:00 p. m.—Health Play by fifty children grade schools.

Music during the afternoon by Griffis Band.

7:30 p. m.—Concert, Griffis Band.

8:30 p. m.—Moving picture, "The Equal Chance."

9:00 p. m.—Radio concert.

#### SUNDAY, MAY 21.

11:00 a. m.—Special sermon by ministers in their churches "Health and Religion."

3:00 p. m.—Quartette, Direction, Mrs. N. D. Bartlette.

Solo, Mrs. John McKenzie.

Dr. C. S. Kenney, Supt. State Tuberculosis Sanatorium, Norton, "Tuberculosis."

4:00 p. m.—Concert Atchison Band.

7:45 p. m.—At the Christian Church Dr. C. S. Kenney spoke to a large audience on "The Responsibility of the Individual in Public Health."

The Kiwanis Club gave three prizes for the best essays on "Health and Success." The prizes were for Five, Three and Two Dollars. They also gave \$5 for the best health poster. Approximately four hundred essays and three hundred posters were entered by the children of the grade schools.

In the display at Memorial there were twenty-seven commercial exhibitors and the exhibits of the Atchison County Public Health Association, Kansas State Tuberculosis Association, Public Health Laboratory, Metropolitan Life Insurance Co., American Child Health Organization, Interdepartmental Social Hygiene, U. S. Public Health Service, Kansas State Board of Health, The Boy Scouts, and the Domestic Science Department of the Atchison High School.

The affair was made a success by co-operation of the Atchison County Medical Society, The Atchison County Dental Society, The Nurses of Atchison, The Ministers, The Public Schools and St. Benedicts College and the Merchants who aided the financial part by their exhibits.

The Association is greatly indebted to Dr. S. J. Crumbine, Secretary State Board of Health and his entire department. The Association also greatly appreciates the sending of J. C. Montgomery, Acting Surgeon, U. S.

P. H. S. to Atchison. The Surgeon General of the United Public Health Service detailed Dr. Montgomery for service the entire week.

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#### BOOKS

Practical Infant Feeding, by Lewis Webb Hill, M.D., Junior Assistant Physician to the Children's Hospital, Boston; Assistant in Pediatrics, Harvard Medical School. Octavo of 483 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$5.00 net.

The author says he has tried to effect a common-sense combination of science and practice. In his opinion it is essential in feeding babies to have a considerable knowledge of the chemistry of metabolism in normal and abnormal babies. One must know the processes going on in the digestive tract and must understand what the various food elements do under various conditions. The author tries to present what is generally accepted as knowledge along these lines.

The Place of Version in Obstetrics by Irving W. Potter, M.D., Buffalo; Obstetrician to Deaconess Hospital and St. Mary's Maternity Hospital, etc. 138 pages with 42 illustrations. Published by C. V. Mosby Co., St. Louis. Price, \$5.00.

The first chapter, 44 pages, is devoted to the early history of version; the second chapter to version in the nineteenth century. The fourth chapter describes the author's technic of version and is especially well illustrated showing very closely each step in the procedure.

Radium Therapy by Frank Edward Simpson, A.B., M.D., Professor of Dermatology, Chicago Polyclinic; Adjunct Clinical Professor of Dermatology, Northwestern University Medical School, etc. 390 pages with 166 original engravings. Published by C. V. Mosby Co., St. Louis. Price, \$7.00.

The author begins his work with a consideration of radioactive substances, the origin and chemistry of radium, an explanation of radium emanations and radioactive deposit and after discussing the theories of its actions, describes the methods of therapeutic applications. This volume seems to cover all that is at present known on the subject. It is well illustrated.

Surgical and Mechanical Treatment of Peripheral Nerves, by Byron Stookey, M.D., Associate in Neur-



ology, Columbia University; Assistant Professor of Neurosurgery, New York Post-Graduate Medical School and Hospital. With a chapter on Nerve Degeneration and Regeneration by G. Carl Huber, M.D., Professor of Anatomy, University of Michigan. Octavo volume of 475 pages with 217 illustrations, 8 in colors and 20 charts. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$10.00 net.

The author says, "The aim of this book has been to give principles and methods whose foundations are laid in embryology, anatomy and physiology as well as in experimental work and in clinical practice, and to advocate the use only of such procedures as have been shown by such criteria to be of value." He also says: "The technic of nerve surgery is the more successful the nearer it approaches what might be termed histological surgery." This is a very exhaustive work on the subject and is well illustrated where it may best elucidate the text.

Opiate Addiction, Its Handling and Treatment, by Edward Huntington Williams, M.D., formerly Associate Professor of Pathology, State University of Iowa. Published by the MacMillan Company, New York.

There is more common sense and more sound logic in this little book by Williams than has been found by the writer in any other discussion of this very important subject. It is unfortunate that laymen who are endowed with law-making privileges and medical men who are privileged to advise them have failed to get a proper conception of the basic factors behind drug addiction.

Management of the Sick Infant by Langley Porter, M.D., Professor of Clinical Pediatrics, University of California Medical School, etc., and William E. Carter, M.D., Assistant in Pediatrics, University of California Medical School. Published by C. V. Mosby Co., St. Louis. Price, \$7.50.

This work differs from the other books on pediatrics in that it deals exclusively with the peculiarities of disease as it occurs in infants. The arrangement of subjects will appeal to the practitioner and afford a ready reference to any information required. Therapeutic methods, in fact, all methods recommended in the management of sick infants are carefully described and illustrated.

Clinics of George W. Crile, M.D., and Associates at the Cleveland Clinic, Ohio. The Thyroid Gland.

Octavo of 228 pages, with 106 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$5.00 net.

These papers describe the function of the thyroid, the role of the adrenals in exophthalmic goiter, diseases and pathology of the thyroid gland. The various associated disturbances and relations are carefully described. The various points in diagnosis and the tests that may be used are thoroughly outlined. Methods of treatment and of operation are fully discussed.

Practical Medicine Series—1921. A series of eight volumes issued at monthly intervals beginning in May and covering the entire field of medicine and surgery. Published by the Year Book Publishers, 304 South Dearborn St., Chicago. Price of the series, \$12.00.

Volume VII—Skin and Venereal Diseases. Edited by Oliver S. Ormsby, M.D., Assistant Professor and Chief of the Syphilis Clinic. Department of Skin and Venereal Diseases, Rush Medical College. Price, \$1.75.

Volume VIII—Nervous and Mental Diseases. Edited by Peter Bassoe, M.D., Associate Professor of Nervous and Mental Diseases, Rush Medical College. Price, \$1.75.

Since these volumes contain the advances that have been made during the previous year, in the subjects of which they treat they are invaluable to the physician who keeps up with the times.

The Healthy Child from Two to Seven, by Francis Hamilton MacCarthy, M.D., Assistant Professor of Diseases of Children, Boston University. Published by the MacMillan Company, New York.

This book is written for the instruction of parents and nurses and covers all the points important to be observed in the physical care, training and education of the child during the period of its life. The first great difficulty is to get a book like this into the hands of those who most need it and the next and greatest difficulty is to get them to study it and follow its teachings.

Tuberculosis in Infancy and Childhood by Claxton Gittings, M.D., Professor of Pediatrics, Graduate School of Medicine, University of Pennsylvania; and Frank Crozer Knowles, M.D., Professor of Dermatology, Jefferson Medical College; and Astley P. Ashhurst, M.D., Associate Professor of Surgery, School of Medicine, University of Pennsylvania. Published by J. B. Lippincott Company, Philadelphia. Price, \$5.00.

The author discusses the various etiologic factors, childhood infection and immunity, methods of dissemination and modes of infection. Considerable detail is given to the general principles of diagnosis. Specific forms are considered. He discusses in regular order tuberculosis of the respiratory tract, bronchial nodes, pleura, heart, abdominal cavity and genito-urinary tract. A special chapter is given to tuberculosis of the skin and another to tuberculosis bone and joint disease.

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The Surgical Clinics of North America (Issued serially, one number every other month). Volume II, Number I (The Philadelphia Number) 331 pages, with 145 illustrations. Per clinic year (February, 1922, to December, 1922). Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

This number of the Surgical Clinics presents a series of clinics by Deaver including duodenal ulcer, adenocarcinoma of breast, recurrent cholecystitis, renal calculus and cyst of liver. Ashhurst reports nine cases including several cases of stricture of the rectum and several cases of carcinoma of the colon. Davis shows an interesting series of cleft palate cases. There are also interesting clinics by Da Costa, Frazier, Anspach, Muller, Jopson, Speese, Pfeiffer, Skillern, Keene, Jones, Piper and Rodman; also an article by Dorrance and Bransfield on the acetic acid treatment of burns.

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Clinical Laboratory Methods, a manual by Clyde Lottridge Cumber, Ph.B., M.D., associate professor of Clinical Pathology, School of Medicine, Western Reserve University, etc. Illustrated with 136 engravings and 8 plates. Published by Lea & Febiger, Philadelphia and New York.

The author has endeavored to make this book of practical value, giving detailed descriptions of the methods employed and the significance of the results obtained. The first chapter, 216 pages, is devoted to the examination of blood including serum reactions. The second chapter, 68 pages, is devoted to the examination of urine. The third chapter gives the methods for examining gastric and duodenal contents, and the fourth chapter deals with the examination of feces. Then

are described the methods for examining sputum, body fluids and exudates. The sixth chapter describes bacteriological methods.

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Practical Therapeutics—a text book by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia Medica and Diagnosis, Jefferson Medical College, etc. Eighteenth Edition. Published by Lea & Febiger, Philadelphia and New York. Price, \$6.50.

Considerable has been added in this last edition and much revision of the older text is evident. Hare has so long been regarded as an authority on this subject that a new edition will be welcome to the profession.

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Diseases of the Skin, a practical treatise by Oliver S. Ormsby, M.D., Professor and Head of the Department of Skin and Venereal Diseases, Rush Medical College, etc. Second edition, revised. Published by Lea & Febiger, Philadelphia and New York. Price, \$10.00.

This work has been very thoroughly revised and at least four hundred pages have been rewritten. Many of the old illustrations have been replaced by new ones. The text has been brought well up to date, the descriptions are clear and concise and the methods of treatment those that experience has proved most satisfactory.

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### The Cause of Typhus

Dr. N. Kritch, Moscow woman physician, has announced the discovery of the typhus germ and her successful growth of this organism in pure culture at the laboratory of the Sakalinesky Epidemic Hospital. This discovery was announced before a meeting of the bacteriological section of the Moscow Medical Society at the Preobrazhenskaya Hospital on April 24, 1922.

In collaboration with Dr. V. Barikan, Director of the Microbiological Institute, Moscow, Dr. Kritch has been working on the etiology of typhus fever since the autumn of 1916. They have isolated the same organism from the brain and spleen of 150 cases of clinical typhus fever one hour after death, after inoculating 200 guinea pigs they have recovered the organism in the same number of cases. It has also been found in cultures obtained from over 2,000 infected body lice.



The organism is comparatively scarce in the blood of typhus fever cases but exists in great numbers in the internal organs, particularly the brain and spleen of humans and guinea pigs, and in the intestinal epithelium of the infected body louse.

The Microbion Typhi Exanthematici in young cultures is found in the form of a disc or biscuit shaped coccus, sharpened on one or both sides, its dimensions vary from 0.4 to 1 micron in length, the breadth being one to two-thirds of the length. The organism is gram negative and is a facultative anaerobe.

The organism cannot be grown on the usual laboratory culture media. It can only be grown and preserved in media composed of a sterilized emulsion of the pancreatinized spleen, liver or intestine of an individual recently dead from typhus adding the typhus culture and a film of paraffin oil to make air tight.

Dr. Kritch also uses a brain culture on agar, getting a luxuriant growth of organisms in 24 hours which resembles the yellow staphylococcus, but this growth dies in fourteen to twenty days and to be preserved must be placed in the spleen media described.

Inoculation of guinea pigs with cultures after a varying incubation period of four to fourteen days gives almost constantly a very characteristic temperature curve which terminates in six to twelve days. These guinea pigs on autopsy show a very characteristic typhus pathology, a quite marked passive congestion of liver spleen and kidney and edema of the brain. There is a marked proliferation of the lymphoid elements surrounding the small vessels in these organs with some destruction of the intimal lining.

From these infected pigs the characteristic organism can be obtained constantly from the brain and spleen. Farther work on the immunity reactions of this organism has been undertaken and is now underway. It is extremely probable that a protective vaccine can be prepared which will afford immunity to this disease as typhus is a disease one attack of which confers lasting immunity.

### Safe Hypnosis

When the physician finds it necessary to prescribe a hypnotic, two questions occur to him: Is it safe? Will it induce a drug habit? If safe, it will put the patient to sleep without risk of immediate reaction involving pain or injury of any kind. If non-habit-forming it may be administered as often as the condition of the patient requires, or discontinued at any time without any more inconvenience to the patient than if it had never been taken.

These conditions are said to be perfectly fulfilled in Chloretone, a Parke, Davis & Co. product, which acts upon the dentritic processes in the brain, relaxing them so that both sensory and motor impulses are inhibited. This effect disappears gradually without, apparently, any more alteration in the functions of the nerve filaments than that which follows the sleep of ordinary fatigue.

Chloretone is given for its hypnotic effect in a dose of 5 grains, to be repeated, if necessary, in half an hour, and at this interval, in exceptional cases, up to 20 or 25 grains. It is indicated in the insomnia of excitement, in sthenic cases only.

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### Prevention of Arsphenamin Injuries

Problem discussed at a meeting of the Berlin Medical Society by Heffter, director Berlin Pharmacologic Institute, and Arndt, director Berlin Dermatologic Clinic.

Heffter warned against invisible cracking of ampules containing arsphenamin, resulting in oxidization and increasing toxicity.

Arndt stated that fatalities after the use of arsphenamin have in recent years increased to an alarming degree. In 1921, twelve fatal cases came to his attention. The so-called arsphenamin icterus he observed 280 times in 1920-21 and at least 231 cases were traceable to arsphenamin. This more frequent in connection with tertiary syphilis. Recommends, therefore, that arsphenamin be reserved for primary and secondary cases with manifest symptoms, also that the sale of arsphenamin be placed under state control. (Berlin Cor-

respondent. *Journal A. M. A.*, April 1, 1922, U. S. P. H. S.)

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### **Arsphenamin Shock Phenomena**

From analysis of the literature and their own conclusive experiments on dogs and clinical experiences, Jeanselme and Pomaret accept as a settled fact that the phenol bodies in the arsphenamin series are responsible for the shock phenomena. The phenol precipitates albumin and thus induces flocculation in the blood. In the clinic and in animals, the reaction depends on the relative acidity of the solution of the drug and the speed with which it is injected. The blood of persons who have had nitritoid crises on injection of arsphenamin has always been found exceptionally acid. With a highly alkaline blood, the arsphenamin shock need not be feared; up to 0.6 gm. of arsphenamin or 0.9 gm. of neoarsphenamin can be injected with impunity. If flakelets form, they dissolve again at once, but hypo-alkaline blood exposes to arsphenamin shock. (E. Jeanselme and M. Pomaret, *Annales de Medicine*, Paris, December, 1921; *Journal A. M. A.*, April 15, 1922, U. S. P. H. S.)

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### **Results of the Modern Treatment of Syphilis**

Van den Heuvel states that 577 cases have been treated in the venereal department of the Naval Hospital at Willemsoord, Holland, by the following methods: (1) Mercury only, 184 cases; (2) mercury followed by neosalvarsan, 190 cases; (3) combined treatment, 203 cases. In the first group the Wassermann reaction became negative in 52.1 per cent; in the second group in 60 per cent; and in the third group 63.5 per cent. Tertiary and parasymphilitic symptoms developed in spite of treatment in 4 per cent of the first group; in about 5 per cent of the second group; and in about 0.5 per cent of the third group. In the third group also 2 cases developed iritis, 2 chorio-retinitis, and 1 retinitis during treatment. Van den Heuvel concludes:

(1) Although the modern treatment by neosalvarsan and mercury combined yields bet-

ter results, especially as regards rapidity of cure, than treatment by mercury alone, they are still far from satisfactory.

(2) Examination of the cerebro-spinal fluid should be made (a) after a cure intended to abort the disease, (b) after incomplete treatment, (c) in cases in which the Wassermann reaction remains strongly positive in spite of long continued treatment.

(3) The time is not yet come, nor is the treatment of syphilis sufficiently uniform, to enable one to decide whether parasymphilis is more frequent as the result of modern treatment. (Van den Heuvel, *Nederl. Tijdschr. v. Geneesk.*, December 17, 1921; *British Medical Journal*, March 4, 1922, U. S. P. H. S.)

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### **The "Miracle" of Milk in Ocular Therapy**

Fradkine makes a logical enquiry as to the biological mechanism of the milk treatment, the sum and substance of which is that "the milk miracle is explained solely by the fact that one introduces into the serum of the organism a rich quantity of alexines which shall destroy the microbes, already sensitized by their specific fixation agent. It is not, in fact, a question of a specific medicament for a given race of microbes, but of an aspecific substance, alexina, which is wonderfully active on any kind of bacterial element—possibly the special advantage of milk lies precisely in its great richness in alexines." (Jacques Fradkine, *British Journal of Ophthalmology*, March, 1922, U. S. P. H. S.)

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### **Review of the Clinical Significance of the Wassermann Reaction**

Strickler reviews literature on findings of positive Wassermann reaction in the absence of syphilis in diabetes, pneumonia, syphilis, fever, malaria, and in pregnant women. Stuhmer and Dreyer (*Ztschr. f. Geburtsh and Gynak.*, November, 1921) showed "that the serum of a healthy woman may respond positively to the Wassermann test during pregnancy and child birth. Unreliable findings were obtained in fully 10 per cent."

In the author's opinion the following should constitute the status of the clinical value of



the Wassermann reaction as a diagnostic measure: (1) A negative Wassermann test in the presence of definite syphilitic lesions is a possibility in certain stages of the disease. This may occur at times in tertiary syphilis, inherited syphilis and also in certain types of neurosyphilis. (2) A positive Wassermann test in the presence of nonsyphilitic disease should not always mean syphilis. It should, however, arouse our suspicion to study our patient from every possible angle in our endeavor to explain this positive reaction. It should be borne in mind that a syphilitic patient is subject to any and all ailments that a nonsyphilitic is heir to. (3) While a strongly positive Wassermann reaction in a subject who is not suffering from any illness should cause us to investigate, nevertheless, too great stress is not to be put on it, unless this finding is confirmed by a number of reliable laboratories. (Albert Strickler, *Journal A. M. A.*, April 1, 1922, U. S. P. H. S.)

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### **The Rationale of the Wassermann Reaction**

McDonagh expresses his views on the subject which are in part as follows: Clinical experience alone has shown that the reaction can be used neither as a regulator of treatment nor as a test of cure, and the results of his recent experimental work, confirm this opinion. Further, both clinical and experimental study have clearly proved that no significance can be attached to a negative reaction, and that a positive reaction by no means affirms that the disease is necessarily active or that the patient requires treatment.

The negative reaction occurring after treatment is simply due to the destruction of the protein particles in the serum by the drugs used; in other words, as a result of several injections of a complex organic compound like arseno-benzene the protein particles are so dispersed as to become converted from the colloidal state into true solution (molecular-dispersoid state). Naturally, in such a state there are not sufficient particles to absorb and precipitate the antigen and complement but we are not justified in assuming therefrom that the drugs have had the same action on

the particles constituting the syphilitic organisms. Clinical experience definitely proves that the organisms are not annihilated when the reaction becomes negative, because recurrences occur nine times as frequently as was the case prior to the advent of arseno benzene.

The author abduces evidence in support of the views expressed. He also details as far as possible the changes the protein particles in syphilis undergo. An attempt is made to explain why a large percentages of syphilitic sera give a negative reaction, why the indigestion of alcohol before the blood is taken may cause a positive serum to give negative reaction, why the serum of a non-syphilitic pregnant woman may give a positive reaction, why the simplest manoeuvres will make a normal serum give a positive reaction, and why the intravenous administration into rabbits of certain metallic and non-metallic colloids render a previously negative serum positive. Bibliography attached. (J. E. H. McDonagh, *British Journal of Dermatology and Syphilis*, February and March, 1922, U. S. P. H. S.)

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### **Chemical Investigations of the Central Nervous System Under Normal and Pathologic Conditions**

Two cases of general paralysis. Koch reports result of chemical analysis of central nervous system in two cases of uncomplicated general paralysis. Investigation shows lipid degeneration, where the water and water-soluble substances have increased at the expense of the lipoids, especially the phosphatids. General paralysis differs from dementia praecox, in that the destructive changes in the former affect several constituents, while in dementia praecox there is unmistakable decrease in the nonprotein neutral sulphur fraction in both the gray and the white matter of the brain, though the other constituents appeared practically normal. The cerebrum in these general paralytic cases shows perhaps the most consistent change in the different chemical groups, especially in the relative proportion of the lipoids

to the extractives. The cortex shows a greater percentage of variation from normal than the corpus callosum; the cerebellum and spinal cord show less changes than the cortex but more pronounced than the corpus callosum. (Mathilde L. Koch, Archives of Neurology and Psychiatry, Aprile, 1922, U. S. P. H. S.)

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### **Epilepsy and Bordering Conditions. Oppenheim, H.**

The author defines his view of an intermediary field between hysteria and epilepsy, in which the "affect epilepsy" of Bratz belongs. The patients of this class are epileptics and they all belong in the group of neurasthenics and psychasthenics. Evidence of this view are the facts that the symptoms in these cases scarcely ever arise spontaneously, but are set in activity by some exogenous cause. For example, ordinary excitements and exertions up to a certain time produce only simple anxiety states or congestions in the patients, but suddenly when there is an increase of these harmful circumstances, or a more frequent repetition of them, convulsions are the result. These convulsions are only an episode in the course of the affection and a patient may be seized with them only once or twice in his entire life. Even when the attacks are frequent, the intelligence and memory do not suffer. The attacks themselves may differ from epileptic convulsions. Finally, the disease is amenable to therapeutic treatment, but yields less readily to bromide than to measures directed against the general neuropathic diathesis. The author gives further precision to his view of the boundaries of epilepsy by differentiating this disease from Friedmann's disease or what was later called "pyknolesy," the peculiar characteristics of which are that it occurs in children, that the convulsions are frequent and of short duration (sometimes 100 in a day), that there is not complete loss of consciousness, nor rigidity of pupils and that the disturbances arise on the foundation of a neuropathic diathesis. Further he differentiates epilepsy from narcolepsy which

with its allied gelasmus he considers as independent neurosis to be distinguished from both epilepsy and pyknolesy. In the author's opinion narcolepsy could be explained by assuming a central point in the mesocephalon from which the entire musculature of the body could be "hypnotized" and controlled. This point would stand in immediate relation with the hypothetical sleep center as well as with the central ganglia which control the mental emotions, especially that causing laughter. An extreme irritability of the sleep center and the central point for relaxing the muscles would render all the phenomena clear, but, as the author concedes, there is no proof of such localizations in the brain. The author describes a series of observations of epilepsy and allied affections in illustration of his views: four cases resembling Friedmann's disease; two cases of cortical epilepsy, namely, one of unilateral convulsions which first suggested a circumscribed focus in the brain, but which the author decided were of psychogenic origin, in a second case which occurred after fright on the foundation of a weakness in the cortical region which the author believes conditioned a peculiar irritability in a circumscribed area; further a case is given which the author decides was genuine epilepsy, though the attacks assumed the form of Jacksonian convulsions. Other observations described are reflex epilepsies, epileptoid convulsions in psychopaths, a case of alternation of tic general convulsions. (J)

Journal of Nervous and Mental Diseases, Vol. 54, No. 6, page 559-60.

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### **Hypnotic Treatment of a Case of Narcolepsy. Myers, C. S.**

There are two ways in which hypnosis may be employed in the treatment of the psychoneurosis: (a) for suggestion, (b) for exploration. Hypnotic suggestion, like other forms of suggestion, merely substitute certain motives for a contrary action to that which it sets out to cure. It is therefore comparable to a counterirritant, whereas exploration—a more appropriate and wider term than anal-



ysis—attempts to probe the cause to its very origin, resting on the belief that repression and dissociation are at the root of the disorder and that reintegration alone can effect a permanent cure.

These latter principles I have applied successfully to a case of narcolepsy in a young Air Force Officer, which came under my observation. It was reported to me that his sleeping attacks were sometimes ushered in by paroxysms of terror in which he spoke Malay and assumed a defensive attitude of the upper limbs. A certain amount of explanation was obtained from the patient in the waking state after great difficulty, but as time pressed and the patient could not be induced to recall the whole occurrence, recourse was had to hypnosis. In *two sittings*, not only the memory of the entire scene of his attack by an orangoutang in Borneo was revived, but also the origin was revealed of his previously elicited fears of being in the dark and of his visual hallucinations of the face of a Chinaman appearing at the window. These were respectively traced to an incident when he was only four years old, and to an exciting experience connected with a murder on a ship.

Now the orang and the ship experiences had never been revived in the patient's consciousness (so he maintains) from the day of their occurrence until he was hypnotized. Post-hypnotic suggestions were given him that he would retain the memories thus revived and that he would be able to face them with equanimity. A striking and immediate relief followed the resuscitation of these memories. Instead of being, as before, a relatively useless member of society, he has now been for several months receiving training in an engineering works. He has felt, to use his own words, "both mentally and physically different," and has been practically free from attacks of narcolepsy.

A striking feature of the case is that the lost memories were recalled without the exhibition of any emotion. It thus offers no support for those who claim that repression (inhibition) of the emotions is the prime cause

of the psychoneurosis. I suggest that it is the *unpleasant scene* that becomes directly repressed, while the emotional component becomes merely dissociated, without suffering repression, and, free to express itself as best it can, manages by well known devices to manifest itself in consciousness.

Revival of repressed memories is, as everyone knows, easiest when the "censor" or "repressor" activity is at a low ebb, e. g., in a state of reverie or dreaminess, than which light hypnosis is to be regarded as only slightly intenser in degree. If only its nature can be satisfactorily explained to the patient and due care be taken to dispel all ideas of mystery about it and of later reliance on the hypnotizer, there seems no reason why hypnosis should not, in a certain proportion of cases, successfully replace the slow piecemeal procedure advocated by the psychoanalyst. (Author's abstract).

Jour. Ner. & Men. Dis., Nov., 1921, page 443.

#### Occurrence of *Endameba Dysenteriae* in Lesions of Hodgkin's Disease

Examination made by Charles A. Kofoid, Luther M. Boyers and Olive Swezy, Berkeley, Calif. (*Journal A. M. A.*, May 27, 1922), of the stools of a patient with Hodgkin's disease revealed the coexistence of amebiasis and Hodgkin's disease. The stool of another patient contained degenerate cysts of an intestinal ameba, among which one typical four-nucleate cyst of *Endameba dysenteriae* was detected. Examination of sections of glands from various cases revealed certain ameboid cells with vesicular nuclei, of smaller size than most of the human nuclei and resembling closely the nucleus of *Endameba dysenteriae* in the active and encysted stage in the bowel. In an inguinal gland taken from an early case, amebas in mitosis were found. The clinical history of the case, necropsy report and a brief statement of the pathologic findings in the excised gland are given and the manner of finding these amebas is described. The evidence presented is held to be conclusive along morphologic lines. It suggests the de-

sirability of further investigation along experimental and therapeutic lines to establish the conclusion that Hodgkin's disease is amebiasis of the lymphatic system. In the event of search by clinicians for cysts in the stools in cases of Hodgkin's disease, the authors emphasize that it is very important to continue the search, in the event of negative results, in stools for six consecutive days, or even much longer, and to search stained smears systematically. In our experience, cysts, especially of the smaller race, from 7 to 9 microns in diameter, or sometimes smaller are brought to light sometimes by assiduous and repeated stool examinations. The detection of the amebas in the glands has been made when the hypertrophy was as yet slight, and also requires assiduous and systematic search.

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#### **Diagnosis, Prognosis and Early Treatment of Poliomyelitis**

The conclusions presented by Robert W. Lovett, Boston (*Journal A. M. A.*, May 27, 1922), are based on a study of 5,100 cases of poliomyelitis. No summary of this paper can be given, as it is at best only a summary of a large field. The important points are that the diagnosis must not be made on the history, but on the physical examination; that tenderness is a guide of great importance in diagnosis, prognosis and treatment; that early treatment consists of rest, and that, in the convalescent phase, muscle fatigue is the chief danger and muscle reeducation the chief reliance, and deformities prevent proper function and promote muscular deterioration. Lovett asserts that if these points are borne in mind, many patients can be spared much unnecessary deformity and disability, and we shall be able to take a much more hopeful view of the outcome of poliomyelitis.

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#### **Treatment of Hyperemesis Gravidarum by the Duodenal Tube**

The deduction drawn by Charles E. Padlock, Chicago (*Journal A. M. A.*, May 27, 1922), from his case are that, by the applied use of the duodenal tube in early stages of

hyperemesis gravidarum, the necessity for emptying the uterus for this disturbance may be reduced to a minimum. This method of treatment not only relieves the concern about the loss of life to the mother, but secures the life of the fetus as well. While, in the treatment, the passing of the tube is comparatively simple, still, to insure the best and quickest results, the co-operation of the patient with the physician is necessary. After the tube has settled into place—it takes from four to twenty-four hours—the rest of the cure is simple. The principal indications for the use of the tube are the loss of weight (due to starvation) or the dehydration of the tissues, in other words, the depleted condition that arises from excessive vomiting, of hyperemesis gravidarum.

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#### **Alcoholic Injection of Second and Third Divisions of Trigeminal Nerve**

Francis C. Grant, Philadelphia (*Journal A. M. A.*, June 10, 1922), reports the cases of seventy-five patients treated by Charles H. Frazier by alcoholic injection, sixty-six for neuralgia, eight for malignancies about the face and jaws, and one for masseter spasm. In all, ninety-four injections were made in seventy-five cases, forty in the second division and fifty-four in the third division. Curiously enough, the right fifth was involved in forty-six cases, and the left in twenty. In the neuralgia cases the average age was 55 years, the youngest 23, the eldest 81. There have been no serious complications as a result of these injections. In the attempts made to reach the third division for the relief of neuralgia, thirty-three were successful and twelve failed, at the first attempt. In every patient who returned for subsequent injection, the nerve was eventually reached. Eight injections of the third division were made in the presence of a malignant growth. Five were successful, and three unsuccessful. Including all cases of third division injections, numbering fifty-four, thirty-nine were successful and fifteen failed at the first attempt, a rate of failure of 28 per cent. In the second division series, forty injections were performed:



thirty-eight for neuralgia, and two for carcinomatous degeneration. Of the thirty-eight injections for neuralgia, thirty-one were successful, and seven unsuccessful in the first instance, an average of 18.6 per cent of failure. Both injections for relief of pain consequent to malignant change were effective. In forty injections of the maxillary division, seven were failures, an average of 17.5 per cent. Grant ascribes the large degree of success to the use of the zygometer and protractor devised by Frazier.

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### **A Test for Diphtheria Immunity and Susceptibility**

A method of testing the blood for the presence of diphtheria antitoxin has been devised by W. H. Kellogg, Berkeley, Calif. (*Journal A. M. A.*, June 10, 1922), said to be quantitatively accurate, and in this respect superior to the Shick test; also, it has the further advantage that it is applied at a central laboratory on blood which can be sent long distances by mail. In this new test, advantage is taken of the fact that the skin of the guinea-pig is sensitive to the minutest amount of diphtheria toxin.

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### **Changes in Finger Nails After Rheumatic Fever and Tuberculosis**

William H. Ro-enau, Chicago (*Journal A. M. A.*, June 10, 1922), describes changes in the nails which he noted following acute rheumatic fever. The finger nails showed small depressions in the nail plate, for the most part presenting a punched-out appearance. Their size varied from that of a pin point to that of a pin head. Some depressions were very superficial, and others were deep. They moved forward with the growth of the rest of the nail, and finally disappeared. The depressions occurred with equal frequency on the nails of the two hands and were most frequently seen on the index and ring fingers. Their number varied from one to ten, reaching, in extreme cases, as high as twenty-two on each nail, the average number being from two to four. These changes were observed early, following an attack of acute rheumatic

fever in five cases, and late, namely, after nine years, in one case. All of these cases were characterized by the association of cardiac changes (endocarditis, etc.). Of 100 patients without a history of rheumatic fever, without cardiac changes, only four, or 4 per cent, showed the characteristic depressions. Of twenty-two patients with a positive history of rheumatic fever or chorea, eighteen showed these changes in the nails to a greater or less degree (81.9 per cent). These nail changes are not apparent earlier than from six to seven weeks), as it takes this length of time for nail changes occurring in the root to grow forward sufficiently to be observed on the visible portion of the nail plate. These changes also occur in active tuberculosis in 70 per cent of the cases, but they are often associated with transverse and longitudinal grooves and clubbing of the finger nails.

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### **Observations on the Use of Milk Injections in the Treatment of Chronic Arthritis**

Effects of the injection of milk intramuscularly were studied by Joseph Eidelsberg, New York (*Journal A. M. A.*, June 10, 1922), in fifty cases of arthritis: (1) No case was of less than six months' duration or longer than five years; (2) the deformity, swellings and interference with function were but slight or moderate, and (3) no other treatment was attempted during the period of observation. The milk was prepared by heating in a closed vessel at 100 C. (in boiling water) for twenty minutes. By excluding the air in the container, no film of caseinogen formed, and to further insure ease of administration, the milk was filtered (although this was unnecessary). The dose administration was from 4 to 6 c. c. for the first injection, from 5 to 8 c. c. for the second, and from 7 to 10 c. c. for the third, fourth or fifth injection. Usually two or three injections were administered to a patient, and if of no value, the treatment was discontinued after the second or third injection. The interval between injections varied from three to seven days, depending on the reaction. The site of administration was deep into the buttock, prepared in the

usual manner. Following about half of the injections, especially the smaller ones, little or no reaction occurred. When the reaction did occur, it would begin to manifest itself usually in from six to twelve hours. It consisted of chills, fever, headache, depression, nausea and vomiting. Following the disappearance of the reaction in practically all cases, there appeared a certain euphoria and feeling of well-being, which did not occur with any other method of treatment. It was short-lived, however. In eighteen patients no improvement seemed to appear. Of the remaining thirty-two, five seemed to clear up entirely, leaving no trace of the disease, and the remainder (twenty-seven) were more or less improved. The degree of improvement was based on the decrease in swelling and pain, increase in function, and general feeling of well-being. The multiplicity of joints involved apparently affected the improvement slightly, excepting when the extent or degree of involvement was marked.

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#### **Milk Ingestion in Relation to Changes in Body Weight of New-Born Infants**

F. L. Adair and Chester A. Stewart, Minneapolis (*Journal A. M. A.*, June 17, 1922), present the results of a study of the changes occurring in body weight, and also of the amount of breast milk obtained at each nursing during the first ten days of life for 298 infants (149 first born and 149 later born infants), weighing between 2,500 and 5,000 gm. at birth. The average body weight decreased to a minimum on the fourth day (the date of birth being considered as the first day). The average loss amounted to approximately 8 per cent. (266 gm.) of the birth weight for the first born infants, and to approximately 8 per cent (266 gm.) of the birth weight for the first born infants, and to approximately 6.4 per cent. (244 gm.) of the initial weight for the later born infants. There was no progressively uniform daily decrease in weight, but for each group the greatest loss occurred on the second day. Following the fourth day, the average body weight for each group progressively increased. On the

tenth day, however, the average weight of the first born and later born infants was still 2.4 and 2.6 per cent., respectively, below the initial weight. For each group of babies the greatest daily gain in weight occurred on the fifth day postpartum. For the first born infants (sexes combined), the amount of breast milk obtained increased rapidly from an average of 13.0 gm. per feeding on the second day to 54.9 gm. on the fifth day. From the sixth to the tenth day, inclusive, the increase continued, although less rapidly, the average meal on the tenth day amounting to 78.4 gm. With the later born infants (sexes combined), the average amount of breast milk per feeding increased from 16.9 gm. on the second day to 59.4 gm. by the fifth day. On the tenth day, the food intake average 84.7 gm. per feeding. Throughout the period studied, the babies of multiparous mothers average larger feeding than the babies of primiparous mothers. The heavier infants in general obtained milk from the breast per feeding than lighter infants (first born and later born infants combined), particularly after lactation was well established. Furthermore, of each weight group the average meal in general was larger for the infants of multiparous mothers than for those of primiparous mothers. Except for the eighth and ninth days, the average amount of mother's milk taken daily for each kilogram of body weight was slightly higher for later borne than for the first born infants. The average amount of 10 per cent lactose solution taken per feeding increased to a maximum on the second day. On the following three days, as the supply of milk increase, the lactose solution ingested progressively decreased. Apparently there was no distinct difference in the amount of lactose solution taken during this period by the later born as compared with the first born babies. Total fluid ingestion per meal (breast milk and lactose solution combined) during the first five days increased from 18.5 and 17.5 and 75.0 gm. for the first and later born infants, respectively. Exclusive of the first day, the total fluid ingestion averaged slightly higher for the latter group of infants.





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### Pulmonary Aspiration

H. J. Corper, Denver (*Journal A. M. A.*, June 17, 1922), shows that the immediate intrapulmonary distribution of inhaled particulate matter (smoke or soot) differs from that of the inspiration or aspiration of particulate matter suspended in fluids (India ink). The former is found heaped up at the points of bifurcation of the air passages or on any prominent projections, as seen in the histologic sections, with relatively little being retained in the alveoli; while the inspired fluid quickly reaches the alveoli, where the insoluble particles of it are retained for a comparatively long time by the trap-like action of these terminal air vesicles. While the inhaled particles are fairly uniformly distributed throughout the entire lung, the inspired or aspirated fluid is irregularly distributed, and its location is determined to a great extent by posture. The pulmonary inspiration of fluids after nose instillation occurs readily in dogs and rabbits under ether anesthesia, and in the horizontal posture with the head slightly elevated. Since the inspired fluid is confined to the upper lobes of the lungs and to the side on which the animal lay while without anesthetic, repeated nose instillations are usually unsuccessful in this posture. In the vertical posture, however, the inspiration of fluids into the lungs is easily attained in rabbits, but less so in dogs, without anesthetic, the fluid being found mainly in the lower lobes. The postural distribution can be imitated in an artificial chest, indicating that it is determined by mechanical means, gravity and inspiration or aspiration. By utilizing the postural data, right or left

side upper lobe pulmonary tuberculosis, possessing many of the characteristics of the disease in man as to location, the formation of pleural adhesions, tissue granulation and necrosis, can be reproduced in dogs, by the nasal instillation of suspensions of tubercle bacilli while the animal is under ether anesthesia and lying on the right or left side during the operation.

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### Acacia for Transfusion

W. M. Bayliss (*Journal A. M. A.*, June 17, 1922), defends the use of acacia solution for intravenous infusion, when properly used, and discusses the objections raised to it. He insists that it is a matter of the greatest importance to use good samples of the acacia.

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# THE JOURNAL

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## Kansas Medical Society

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### Ophthalmic Therapeutics

J. W. MAY, M.D., Kansas City, Kans.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

At the last meeting of the Academy of Ophthalmology held in Philadelphia October, 1921, Dr. Walter R. Parker of Detroit, one of America's leading ophthalmologists, read a paper along similar lines to the one I have prepared. True his was delivered to ophthalmologists solely, but I will endeavor to present this one in a manner that will be of interest to all. I will first take up the drugs more commonly used in eye work and then the ones not so well known, either because of recent introduction or rarity of usage. It is obviously impossible to cover in the limited time all of the drugs and methods of treatment advocated by various authors and writers in eye work, so have confined this paper almost entirely to the ones that have come under my own observation.

**Boric Acid**—Saturated solution as a collyrium harmless and useful. It is a fine cleansing agent without much antiseptic power, used warm is more efficacious. In making the saturated solution it is well to see that there are no undissolved crystals. They are very irritating.

**Argyrol**—Our old friend—at least, it was mine formerly but I use very little of it at the present time for the reason that in my hands it has demonstrated very little germicidal efficiency. It has one distinct advantage when used as an adjunct in gonorrheal ophthalmia; being very heavy it will get down below the discharge and float or push it out through the lids. I use it 25% every 30 minutes in addition to silver nitrate 2% once or twice daily. I remember very well some twenty years ago reading a paper on the wonderful value of this drug, which is supposed to contain about 35% of colloidal silver, and after expatiating on the many diseases it

would cure, ended by saying, "here is a drug that will not produce argyrosis." Since then I have seen six or seven cases, two of which were the worst type. One of these I produced myself by allowing a patient to use the drug at home without limitation. A fresh solution should be employed as it deteriorates in a few days. Some years ago F. Park Lewis reported a case where an eye was lost following injection into the tear sac of a solution of argyrol. The sac was necrotic from an old dacryocystitis and when the argyrol was injected it percolated through the tissues exciting a violent orbital cellulitis within two hours, which ended with a complete optic atrophy. That one case ended my use of argyrol in the tear sac.

**Protargol**—Two to 10% has more germicidal power than argyrol but is also more irritating.

**Zinc Sulphate**—Here is a specific for the Morax-Axenfeld diplo bacillus which produces an acute conjunctivitis, one of the so called pink eye type; also some low grade forms of conjunctivitis and a few corneal ulcers. This organism is frequently hard to demonstrate with cultures or smears and it is many times justifiable to use the drug on the clinical appearance alone. The strength recommended and which I ordinarily employ is one grain to the ounce.

**Bichloride of Mercury**—1 to 5000 is a valuable cleansing agent used by many ophthalmologists. In a 1 to 3000 ointment with sodium chlorid and petrolatum (White's ointment) it is used in conjunctivitis, corneal ulcers and following operations on the globe.

**Potassium Permanganate** is useful to irrigate eyes with all forms of purulent conjunctivitis particularly of the gonorrheal type. The strength should be 1 to 3000 increasing to 1 to 1000 or 1 to 500.

**Methylene Blue** solution, 1 to 1000, is very

useful and will cure many cases of persistent conjunctival discharge following enucleation.

**Silver Nitrate**—Probably no drug in our armamentarium is more universally used in infectious eye disease than silver nitrate, in strength of a grain to the ounce to 2% which is my limit in eye diseases. I can not lay too much stress upon its value. In gonorrheal ophthalmia 1 to 2% painted on everted lids, in acute catarrhal conjunctivitis from 1 grain to the ounce to a 1% solution, and in trachoma 2% solution, its use cannot be dispensed with in a vast majority of cases. In a grain to the ounce solution it has distinct advantages over the organic silver salts and in my hands it has proven clinically to have more germicidal power than a 25% solution of argyrol. As to the use of silver nitrate in the eyes of the new born babe, it is in my opinion without equal and this has been fully demonstrated. Crede's method is 2% instilled immediately after birth. It is also my opinion, 1% is entirely sufficient, the stronger solution creating a great deal of reaction with at least temporary injury to the cornea in many cases.

Silver nitrate is a drug which requires care in its use for its known detrimental action on the corneal epithelium and the liability to produce argyrosis with long continued application. On the other hand, its action can be controlled by the use of normal salt solution. I once had a nurse who inadvertently put a dropperful of 25% silver nitrate in an eye operated 4 days previous for cataract. The corneal epithelium was destroyed. Salt solution was used almost immediately and after the epithelium reformed it was found no damage had been done except to my nervous system. However, would not advise this as a routine treatment for any eye disease.

**Copper Sulphate (bluestone)**—About the only use I have for this drug is in trachoma. In the form of a pencil rubbed on the everted lids, the excess being washed off, it is invaluable in some cases.

**Yellow Oxide of Mercury Ointment**—In marginal blepharitis either squamous or ulcerative it is fine treatment. In the latter type it may be necessary to treat each ulcer

with silver nitrate before using the ointment. In phlyctenular conjunctivitis and keratitis it is sometimes of value. It is supposed to be useful in interstitial keratitis and opacities, but has proven of little worth in my hands. The strength of the ointment should be one or two per cent and is put up by several pharmaceutical houses in collapsible tubes.

**Copper Citrate Ointment**—This ointment is good for the patient to use at home in the treatment of trachoma. It also can be obtained in collapsible tubes of 5%.

**Ethyl Hydrocuprein**—A derivative of quinine when first brought forward was thought to be an absolute specific for pneumococic ulcer of the cornea. It will cure some cases and is a drug of undoubted merit. However, it cannot be used as a specific in all cases, and in my experience there are other means such as subconjunctival injections of mercury cyanide and Shahan's thermaphore, which are much better for this virulent form of ulcer. It is used in a 1 per cent solution as often as every hour or 2 per cent applied directly to the base of the ulcer.

**Tincture of Iodine**—applied directly to a corneal ulcer will cure many of the less severe types. It should be applied with a tightly wound cotton applicator keeping the excess from clear cornea. It will not do damage if it does overflow, only the discomfort. I saw a patient who had iodine instilled into an eye under the misapprehension that it was argyrol. No untoward results remained.

#### MYDRIATICS.

**Atropine**—This is first and foremost of all mydriatics and it would be hard indeed to practice ophthalmology without its use. The standard solution is 1 per cent although I have used the powder and some times subconjunctivally in weak solutions. For refraction in children and young people to paralyze the accommodation it is without equal. In the treatment of iritis, cyclitis, keratitis, scleritis, corneal ulcers, before and after cataract operations, and in fact all inflammations of the deeper structures except where there is increased tension. I have seen three cases of acute glaucoma (glaucoma fulminans) produced by



its use in eyes where an increased tension already existed and a few cases of atropine poisoning from instillation into eyes with no untoward results following. This can usually be avoided by compressing the tear ducts after its use or by using atropine ointment or a solution in olive oil. It should also be born in mind that an atropine conjunctivitis with oedema and eczema of the lids and folliculosis can be produced when used for any length of time.

**Homatropine**—This drug has its place and I use it a great deal for refraction in adults and in cases for retinoscopy. One drop of a 2% solution instilled every ten or fifteen minutes for one hour is usually sufficient. If any irritation exists following its use one drop of 4% cocaine will bring relief. Two cases of poisoning with delirium have occurred in my practice, both recovering without incident.

**Duhoism**—Hyoscyamin and Scopolamin are mydriatics which have a limited field in ophthalmology.

**Euphthalmin**, 5% solution is useful to dilate the pupil for ophthalmoscopic examinations. It has very little effect on accommodation and in all probability does not increase tension.

#### MYOTICS.

**Eserine**—In simple chronic and rarely in acute inflammatory glaucoma is most valuable. Its use of course has to be continued indefinitely but where it will contract the pupil and reduce the tension keeping vision from being lowered, it is far superior to any operative procedures as yet devised. I use it in the form of an ointment in olive oil and petrolatum  $\frac{1}{4}$ % strength. It is often advisable to commence with weaker solutions increased as the case demands, just a sufficient dosage to keep the tension normal.

**Pilocarpine**—from 1 to 5 grains to the ounce, while a weaker myotic, is also of great value in some types of glaucoma.

#### SUBCONJUNCTIVAL INJECTIONS.

**Cyanide of Mercury**—Of all the drugs under my observation this one has produced some of the most marvelous results in severe

corneal ulcers and intra-ocular infections. I never treat a serpigintous, pneumococic or hypopyon ulcer of the cornea without employing this drug, either in conjunction with Shahan's themaphore, the usual cleansing agents and stropine or without the themaphore. Many eyes have been saved to usefulness by a large number of ophthalmologists with the use of cyanide of mercury. The method advocated by Dr. H. W. Woodruff of Joliet is to inject far back behind the globe 8 drops of a 1 to 1000 solution with 4 drops 4% solution cocaine. This can be repeated the following day and as often as desired. A great reaction, intense swelling and edema of lids and conjunctiva is produced within a few hours, which in most cases is followed by immediate improvement. There is considerable pain which can be controlled mostly by heat, if not 1-6 of morphia hypodermically readily does. I wish time would permit the telling of some of the wonderful results attained by this treatment, hopeless extensive corneal lucers with hypopyon and infections within the globe, cases which before using this treatment were rapidly lost, clearing up with its use.

**Sodium Chloride**—Subconjunctival injections in low grade uveitis and vitreous opacities is beneficial in some cases. It was advocated in glaucoma and thought that the tension of the globe could be reduced by its use but such is not the case.

Shahan's themaphore is an electrically controlled instrument by which a continuous heat 60° centigrade can be applied to the cornea to pasteurize not cauterize an ulcer. It also works marvelously in some cases alone or in conjunction with cyanide of mercury injection.

#### LOCAL ANESTHETICS

**Cocaine**—This drug has been and is being used more than any local anesthetic in eye work. Its anesthetic power was discovered by Koller in 1884 and its use has been continuous since. Used in 4% solution anesthesia can be produced for extensive eye operations in from 6 to 10 minutes; lesser strength for subconjunctival injections to enhance the effect particularly necessary in operations for

glaucoma, tendon tucking, muscle transplanation, etc., also in infiltration anesthesia. Its disadvantages are slowness of action, toxicity, dilatation of the pupil, dehydration or drying of corneal epithelium, and deterioration with boiling.

Right here I would like to decry the promiscuous prescribing of cocaine to patients to relieve eye pain. Where eye pain exists there must be a known cause and that cause should be relieved if possible. Certainly cocaine, which has an anesthesia lasting only a few minutes would have to be instilled repeatedly to be of any great service and the bad effects accompanying its continued use is absolutely not advisable except in the rarest instances. Combined with eserine it might be of some value in painful glaucoma.

Butyn—One of the new local anesthetics put on the market during the past year. It is a synthetic drug, para-aminobenzoyl gamma di-n-butylamino propanol sulphate with a proprietary name of butyn. From present indications it bids fair to supplant cocaine in local anesthesia for eye work. It has several advantages compared to cocaine:

1. More powerful, a smaller quantity being required.
2. Acts more rapidly.
3. Action more prolonged.
4. In the quantity required less toxic.
5. Produces no drying effect on the tissues.
6. Produces no change in the size of the pupil.
7. It has no ischemic effect and therefore causes no shrinking of the tissues.
8. Can be boiled without impairing its anesthetic effect.

These conclusions are from the committee on local anesthesia of the Section on Ophthalmology of the American Medical Association, who have made an exhaustive study of this drug. My own experience has been limited to its use the past four months and I must say it has proven its worth. It requires about one-half the time for anesthesia, no uncomfortable dilatation of the pupil, used in 2% solution one-half that of cocaine ordinarily employed; can be repeatedly boiled without

deterioration, and not being classed as a narcotic can be obtained without narcotic blanks.

Holocain is a good local anesthetic used with or without cocaine. It is supposed to be more penetrating than cocaine, does not dilate the pupil and is mildly antiseptic. It however, produces more irritation and cannot be used hypodermically on account of its toxicity. A 1% solution is ordinarily employed.

Novocain is perhaps the best drug known at this time for infiltration anesthesia in operations upon the lids and globe, used in a one per cent solution almost without limit, its toxicity being of very low degree.

Adrenalin and other similar drugs are highly efficacious to heighten the effect of local anesthetics, to control the accompanying hyperemia and to make possible a bloodless field of operation.

Dionin (Ethyl morphine hydrochloride)—This drug depends for its action on the amount of reaction it excites. A drop of 10% solution (which is the strength I use and is approximately saturation), instilled into the eye produces in nearly all cases intense redness and swelling of the conjunctiva—the more redness and swelling the greater its therapeutic value.

My own experience in the use of dionin during the past fifteen years proves its efficiency in iritis, keratitis, corneal ulcers, scleritis, episcleritis, and in several cases of commencing senile cataract. It is fine for the relief of pain and will undoubtedly enhance the power of atropine to break up adhesions in iritis. In keratitis it will prevent many of the opacities but I have not seen it clear up any real opacities following corneal ulcers.

Fluorescein in a 2% solution is used in staining corneal ulcers to determine their extent. The clear cornea is not changed by this procedure but the involved area takes the stain, which is temporary.

The application of heat or cold to inflamed eyes is exceedingly beneficial in many cases. Ordinarily it is my policy to use heat where the deeper structures of the eye are involved, i. e., keratitis, corneal ulcers, iritis, cyclitis, scleritis, etc., and cold in the various forms



of conjunctivitis. This cannot be made an iron clad rule as some cases of gonorrheal ophthalmia do better with heat than cold applications.

Pilocarpine sweats are recommended for choroiditis, chorio-retinitis, optic neuritis, chronic glaucoma, detached retina and various other eye diseases. I have seen very little good come from its use.

Local blood letting is of value in some cases such as iritis, irido-cyclitis, etc., particularly for the relief of pain and is best used in the form of the artificial leech applied after scarification to the temple.

The actual cautery is useful in some forms of corneal ulcer, particular care being taken not to destroy healthy tissue.

The use of Roentgen rays in the treatment of malignant growths in the lids and globe is of great benefit in selected cases, either with or without surgical intervention. This is particularly true of epithelioma of the lids, in the early treatment of sarcoma and carcinoma and following exenteration of the orbit for malignancy.

Radium has about the same effect as the Roentgen ray in the treatment of malignancy of the lids and globe; some very flattering reports have been made recently as to many so called cures. Radium emanations will probably be the real treatment for this class of cases and the reason is simply they can be placed in tumor growths inaccessible to the Roentgen rays. I saw one case of epithelioma of the globe situated at the sclero-corneal margin successfully treated with radium, and five years have passed with no recurrence.

The systemic treatment of eye diseases is many times more important than the local. This of course is readily seen when we take into consideration the various causes, i. e., iritis, focal infection, syphilis and gonorrhea, keratitis, tuberculosis, etc.

Potassium iodid, the many forms of mercury, salvarsan, neo-salvarsan, sodium cacodylate, syr. iodide of iron, sodium salicylate, tuberculin, vaccines, foreign proteins and in fact, drugs in number almost without limit are recommended and used in eye affections.

I want to mention a few that stand out prominently. We have lately been using in many forms of intra-ocular diseases intravenous injections of sodium cacodylate and with some very flattering results. Vaccines and antitoxins, except in diphtheria, have very little use in ophthalmic diseases. Tuberculin is of value in tuberculous diseases of the eye such as keratitis, iritis, etc.

Sodium salicylate given daily one grain for each pound of body weight (Gifford's rule) is highly recommended for sympathetic ophthalmia and all non-specific inflammations of the iris, ciliary body, sclera, interstitial keratitis and post-operative or traumatic injuries.

Salvarsan has lately been used in sympathetic ophthalmia and some cures have been reported by its administration.

Foreign protein injections have more recently come into active use in this country, although they have for some years been in vogue particularly in Germany. The law upon which this treatment is based is Arndt-Schulz's: weak stimulations start up life, medium ones further it, strong ones hinder it and strongest ones suspend it. A few of the proteins being used for acute and chronic inflammatory diseases of the eye are—milk, egg-white, collargol, hypertonic salt solutions, caseosan, grape sugar, cane sugar, argo-chrome and horse serum. Within the past two or three years auto serum therapy as well as homologous inactivated, defibrinated blood has been used with varying degrees of success, depending on the treatment of the observer.

I have formulated a few "don'ts" some of which have been painfully brought to my attention:

Don't dust calomel in an eye when under K. I. Chlorine is eliminated in the tears, combining with the calomel to form a caustic.

Don't use yellow oxide of mercury ointment when under K. I. The latter excreted in the tears forms a highly irritating salt of mercury.

Don't use atropine or any other mydriatic in an eye in which there is increased tension.

This does not apply to iritis where the tension in some cases is probably secondary.

Don't use an eye cup for eye irrigations for the reason that the skin of the lids is not clean and material from them is carried into the eyes by such procedure.

Don't indiscriminately prescribe cocaine solutions for eye pain. When used often it has a tendency to dry and crack the cornea making ulceration possible and at any event, the cause should be determined and treated by other means.

Don't use yellow oxide of mercury ointment where even the smallest particles are not dissolved. It is exceedingly irritating.

Don't dispense or prescribe any poison solution such as dionin, atropine, cocaine, etc., without a "for use in eye only" label.

Don't use poultices on an eye. Some oculists recommend various forms of antiseptic poultices, but to my mind they act simply as incubators, making the growth of bacteria infinitely more rapid.

Don't cauterize a prolapsed iris with the galvano-cautery, for the reason that the danger of sympathetic ophthalmia is thereby materially increased.

Don't use solutions containing sugar of lead on account of the danger of permanent opacities remaining in the cornea.

In closing I would like to again emphasize that the eye is just as much a part of the body as any other organ, even though not so vital as far as life is concerned.

Therefore it is plain to see that a vast majority of eye diseases require systematic medication in addition to local treatment. In fact, it could almost be made a rule that where a local infection is not the cause, then in all probability a physical examination would be a necessity—Wassermanns, blood and spinal fluid, urinalyses, chemical and microscopical examination for focal infection, teeth, tonsils, sinuses, tuberculosis tests, stomach analysis with x-ray findings should be made when necessary, for every organ in the body can play its part in the causation of eye diseases.

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#### Notes on the Treatment of Vernal Catarrh

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Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

Vernal catarrh is not a frequent disease. Only in the large clinics is one likely to see a considerable number of cases. The physicians in the smaller communities may not see but a few cases in a lifetime, even with a rather extensive practice.

The disease is chronic, extending over many years, and tends to improve or disappear during the cold months. Relapses or recrudescences take place in hot weather.

Much has been written about this disease, and many are the remedies suggested for its cure. The more recent ones are thromboplastine, x-ray and radium. Some favorable reports have appeared in ophthalmic literature, but the text books state that treatment has little or no effect on the course of the disease. Little is really known as to the etiology, though many theories have been advanced. Some authors believe that those subject to lymphoid enlargements are more susceptible to vernal catarrh than others.

Dr. Small discusses vernal conjunctivitis in the American Cyclopaedia of Ophthalmology. The disease, as he describes it, bears very little resemblance to the picture of most authors. Two types of the disease are recognized—one affects the bulbar conjunctivae and the other the membranes lining the lids. De Schweinitz speaks of a mixed type. The late Dr. Cheatham believed the prognosis to



be the better in the bulbar type. This is also the belief of De Schweinitz.

The subjective symptoms of vernal catarrh are a feeling of heat, lachrimation, itching and photophobia. Usually the symptoms are mild as compared to the tissue change present, though at times the itching is exceedingly annoying.

In the bulbar type of this disease there are dense gelatinous hypertrophies of the conjunctivae, principally in the more exposed parts. There may be some encroachment on the cornea, and also there may be pigmentation of the hypertrophic masses.

In the tarsal type, the tarsal surfaces are thickly studded with large dense nodules separated by furrows. Frequently the tops of the nodules are flattened, giving the appearance of plaques supported on thick hard pedicles. Some authors speak of the tissue change as an increase of yellow elastic tissue, while others incline to the belief, that the tissue change is a hyperplasia of the connective tissue. All agree that it is not a multiplication of the epithelium.

There is hyalin degeneration present, and in some cases the degeneration is quite extreme. The degeneration gives to the affected area a bluish tinge, and in the cases of great degeneration, the whole area seems to be covered by a bluish gray translucent film. The lids are thickened, though the margins are seldom irritated. There is often inability, owing to the thickening, to fully open the eyes. This gives to the patient a sleepy look.

Males of the adolescent period are far more likely to acquire the disease, than females of like age. After full maturity neither men nor women are likely to be afflicted with vernal catarrh. The disease is usually bilateral and the tarsal type the most frequently encountered. When the final exit comes the disease disappears leaving no trace, such as scars or thickening of the tissues, of its years of occupancy.

I wish briefly to report the result of treatment in two cases, both of the tarsal type. The cases were both in healthy males in their early teens—one with a very normal throat

without signs of lymphatic enlargements—the other had had tonsils and adenoids removed at the age of nine years.

One case had been in the hands of a good man, and his treatment failed to improve the condition of the patient. I, also had used all suggested remedies except x-ray and radium for several weeks without appreciable results. I had a general anesthetic administered, and after clipping off the nodules with scissors and stopping the bleeding by pressure and adrenalin solution, I cauterized the stumps with the electric cautery at dull red heat. I did not do a very thorough job for fear of burning the cartilage, and was much chagrined to see a new crop of nodules grow in record time. However, there were a few clear patches of membrane. This encouraged me to again use the cautery. A third application was made to one tarsal surface before a cure was complete.

In the second case, I applied the cautery without any preliminary, except the clipping off of the nodules and the use of adrenalin. I did a thorough job, and feared that scarring and distortion of the cartilage might result. The reaction following was only moderate and the case soon showed a smooth normal membrane lining the lids.

Both cases have now passed the second summer without relapse. Both have normal conjunctivae, and the patients and friends are greatly pleased at the outcome.

I am well aware that two cases furnish insufficient evidence as to the worth of the treatment, and that the results are not worthy of a long academic dissertation on vernal catarrh, but the very few minutes I have taken is not a serious trespass on your time, and the report may be of some interest to those in ophthalmic practice. My results do not settle the question of treatment, it may encourage a new angle for attack on this very intractable disease.

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Singing is ideal hygienic exercise. Mention is made of it as a fact, and not to be put into general practice because of the unpleasant outside interference it may breed.

## Blood Sugar Curves in High Blood Pressure Cases

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In a previous paper on "The Relation of Kidney Function to the Prognosis and Treatment of Hypertension" we made mention of the fact, by no means new, that in certain high blood pressure cases, especially those with evidence of nephritis, that distinct elevations of fasting blood sugar are often encountered, and that we thought possibly blood sugar determinations might be utilized as tests for kidney function.

Consequently we have worked rather consistently on this particular phase of the high blood pressure problem, and while our material has been rather limited, and in spite of occasional inconsistent findings, we feel that a report of our observations may be of value, at least we hope to obtain a free discussion of our conclusions, in order that different and possibly better methods of attacking this problem may be suggested.

During the past few years quite an extensive literature has accumulated on the subject of Blood Sugar Levels in Various Stages of Nephritis. Hopkins, in 1915, reported twenty-six cases of severe nephritis and found distinct elevations of blood sugar in all but five cases. He also studied the subject referable to high blood pressure in sixteen cases with systolic pressures ranging from 180 to 230. Hyperglycemia was noted in eleven. In ten cases showing no high pressure, hyperglycemia was noted in three. Meyer and Killian reporting on twenty-three cases of nephritis conclude that in general, high blood sugar values accompany high urea values. Mason states that the renal threshold for sugar is elevated in severe cases of nephritis and shows one glucose tolerance curve with fasting level at 10 mg., apex in second hour at 217 with fourth hour at 11.

Williams and Humphrey in a study of fifty cases with cardio renal disease, state that early in nephritis, when the general metabolism is only slightly disturbed that blood sugars are, as a rule, normal; but that in the

last stages of the disease, especially in those bordering on uremia the blood sugar level is high and that other important metabolic elements will be found to be correspondingly increased. In high blood pressure with no evidence of renal disease, the blood sugars were found to be only slightly raised.

Spence, reporting on glucose tolerance curves with special reference to variations found at different ages, states that possibly the high blood sugar levels found in some cardio vascular cases, are dependent upon the age of the individual, rather than to any definite abnormal function. He made glucose tolerance curves on five healthy men over sixty years of age and found curves suggesting mild diabetes with the apex occurring at 200 mg. in one-half to one and one-half hours with normal fasting level at four hours. He also calls attention to the important fact that elevations of creatinine might interfere with blood sugar readings where picric acid is used as a precipitant, especially cases showing evidence of marked nitrogen retention.

Biery, Rathery and Berdet bring out the fact that in all probability, the high blood sugar levels found in chronic interstitial nephritis cases with hypertension is due to a general unbalancing of total metabolism rather than to an impermeability of the kidney for sugar. They made no effort to explain why it is that occasionally a non-diabetic case is encountered with a very high blood sugar level and no glycosuria; and in other cases only relatively high blood sugar levels with occasional glycosuria. They also emphasize the importance of total blood sugars rather than plasma sugars and that in nephritis the blood sugar level usually corresponds closely with the level of urea nitrogen. They seem to associate hyperactivity of the suprarenals with hyperglycemia found in certain cases of hypertension.

It is rather interesting to note, in general, that the consensus of opinion seems to be that hyperglycemia is apparently more or less closely associated with those nephritics showing high levels of urea, being especially marked in cases with hypertension and that



cases of so-called parenchymatous, nephritis or nephroses with grave metabolic disturbances usually show blood sugar levels apparently normal.

The following report is based on a study of eighty-five high blood pressure cases. We have tried to determine, from a standpoint of various functional tests, the number of these cases showing demonstrable signs of nephritis, also in some of the cases showing high blood sugar levels, we have made glucose tolerance tests.

Our technique is as follows: The patient is instructed to report in the morning without breakfast, a specimen of blood and urine are taken and the patient is given 1.5 gm. glucose per kg. of body weight. This glucose is given in orange or lemon juice and made up to 400 cc. Specimens of blood and urine are taken every hour for four hours and the determinations made. We use routinely the method of Folin and Yu for our blood sugar determinations.

Before discussing the results obtained from our work it might be well to give a brief outline of the methods used in carrying out this investigation. In the following series we shall confine ourselves to patients whose systolic blood pressures range from 180 to 300. The fact that we have not considered those cases showing definite sign of nephritis if higher than that usually given by most observers.

We have established a definite routine for all high blood pressure cases entering the clinic.

1. Repeated analysis of the 24 hour urine.
2. Mosenthal's two hour test for specific gravity, with urine chloride.
3. Phenolsulphonephthalein test.
4. Urea concentration test.
5. Blood urea nitrogen.
6. In all cases with high urea nitrogens we have also made creatinine and sugar determinations and in other cases such tests as were suggested.

The following tables will show in a general way, the result of these various tests together

with a few remarks relative to age, weight and to relative frequency of focal infection.

TABLE No. 1.

## SIMPLE HYPERTENSION—50 CASES.

- 6 have albumen in small amounts.
- 17 have a few hyalin or granular casts.
- 6 have a definite low fixation of spg.
- 7 have a definite high fixation of spg.
- 10 pass more than 400 cc of urine at night.
- 7 have less than 5% sodium chloride.
- 17 have a urea concentration of less than 2%.
- 15 excrete less than 50% phenolsulphonephthalein.
- 10 have more than 15 mg. urea in 100 cc blood.
- 1 has more than 20 mg. urea in 100 cc blood.
- 1 has more than 1.5 mg. creatinine in 100 cc blood.
- 10 have more than 110 mg. sugar in 100 cc. blood.
- 0 has less than 50% CO<sub>2</sub> Comb. power of blood plasma.
- 45 have evident focal infection in teeth or tonsils.
- 38 are overweight.
- 47 are over 40 years of age.
- 19 have varying degrees of edema.

TABLE No. 2.

## HYPERTENSION WITH DEFINITE RENAL PATHOLOGY—13 CASES.

- 13 have albumen, hyalin and granular casts.
- 7 have definite low fixation of spg.
- 1 has definite high fixation of spg.
- 11 pass more than 400 cc night urine.
- 8 excrete less than 5% chlorides.
- 10 have urea concentration less than 2%.
- 12 excrete less than 60% phthalein in 2 hours.
- 13 have 15 mg. of urea nitrogen per 100 cc blood.
- 11 have 20 mg. or more urea nitrogen per 100 cc blood.
- 6 have 30 mg. or more urea nitrogen per 100 cc blood.
- 3 have above 60 mg. urea nitrogen per 100 cc blood.
- 7 have more than 110 mg. blood sugar per 100 cc.
- 5 have more than 1.5 creatinine per 100 cc.

- 6 have less than 50 cc. CO<sub>2</sub> Comb. power.
- 13 have focal infection—9 pyorrhea and apical abscesses, 5 infected tonsils.
- 10 are overweight.
- 12 are over 40 years of age.
- 10 have edema.

TABLE NO. 3.

## HYPERTENSION WITH ELEVATED SUGAR—14 CASES.

- 8 have albumen in small amounts.
- 7 have a few hyalin and granular casts.
- 0 has low specific gravity.
- 9 have high fixation of specific gravity.
- 12 pass more than 400 cc urine at night.
- 6 have less than 5% chlorides.
- 4 have a urea concentration less than 2%.
- 6 excrete less than 50% phthalein in 2 hours.
- 8 have more than 15 mg. urea in 100 cc blood.
- 5 have more than 1.5 mg. creatinine in 100 cc.
- 5 have more than 20 mg. urea in 100 cc blood.
- 14 have more than 110 mg. blood sugar—160-400 mg.
- 2 have less than 50 cc CO<sub>2</sub> Comb. power.
- 4 have focal infection of teeth or tonsils.
- 4 have positive Wassermann tests.
- 8 are overweight.
- 12 are 40 years of age.
- 6 have edema.

I will pass hurriedly over a few of the salient points in the first and second groups and analyze more carefully the data contained in the third group. In the first group only a small percentage have albumen and this is usually found only at times. A relatively larger number have a few hyaline casts. I think at present, most observers agree that the finding of a trace of albumen and a few casts does not furnish absolute evidence of nephritis. Mosenthol has emphasized the fact that an early sign of interstitial nephritis is a low fixation of specific gravity with nocturnal polyuria and low sodium chloride output. Of course, these phenomena simply indicate an inability on the part of the kidney to concentrate solids.

Mac Lean made a large number of urea concentration tests on returned soldiers and concluded that individuals with definite kid-

ney pathology were unable to concentrate urea in the urine in amounts higher than 2%, following a dose of 15 gm. urea by mouth. In a previous paper I attempted to show that early in interstitial nephritis, occurring in high blood pressure cases, the kidney was unable to concentrate urea in amounts exceeding 2% following Mac Lean's method of administering 15 gm. urea by mouth and collecting urine during the first and second hours following. You will notice that seventeen of the above cases have low urea concentration tests. I might add here, that further experience with this test has led me to conclude that the figure 2% is considerably too low, especially if we use the more modern methods of estimation of urea than did Mac Lean. We note that only one case shows slight evidence of nitrogen retention and that ten have over 110 mg. sugar per 100 cc blood.

Very significant is the fact that forty-seven are over forty years of age, thirty-eight are over-weight and forty-five have focal infection and it has been rather gratifying to see consistent fall in blood pressure and general improvement in these cases when either or both of the last two factors have been eliminated. I think that the nineteen cases showing varying degrees of edema are best explained on a basis of beginning heart failure, very few having low sodium chloride output. Also I think it quite likely that the transient albuminuria, noted in certain cases, may be similarly explained. Certainly a definite line of demarkation between this group and the next, is poorly defined but nevertheless. I do not feel justified in calling these cases Bright's disease.

The thirteen cases of this group are clinically cases of nephritis. By casually glancing over the results of the various tests, we at once see that nearly all retain an abnormal amount of non-protein nitrogen and that over 50% have elevated blood sugars. All have advanced focal infection. In almost all of the cases, smears from the pyorrhea pockets show Vincent's spirochetes and usually one is able to culture streptococci from the pockets and also from the abscess sacs, forming on the apices



of the teeth. It is a well known fact that the spirillae is essentially an anerobic organism and in fact, many of the strains of streptococci cultured from these cases grow better in the lower levels of culture media, where the oxygen content is low. It strikes me, therefore, that if perfect results are to be obtained, the cases should be taken care of surgically and not after the fashion commonly in vogue, of pulling the tooth and letting the patient go, for better or for worse.

In the next group we have a new factor to deal with, hyperglycemia, and the issue of this discussion will be an attempt to throw some light on this interesting phenomenon. There are two current hypotheses, both attempting to explain hyperglycemia in nephritis. (1) That with the advent of nephritis in high blood pressure, the kidney is unable to excrete certain substances, i.e. nitrogenous products, salt and sugar. (2) Generalized metabolic instability. That in nephritis, we not only deal with a purely local infection of the kidney but also with various abnormalities of metabolism, nor unlike in certain respects, those encountered in diabetes mellitus.

When one considers the fact that cases of polycystic kidneys with practically no functioning kidney tissue are sometimes accidentally found at autopsy, with no history indicating renal insufficiency the first hypothesis seems inadequate to explain the phenomena, at the same time, one occasionally encounters a case in which no other explanation seems adequate. I think, if we consider rather critically, a few of the cases in this group, we will see that neither of the above hypotheses is capable of explaining the condition in all its various aspects, but if we strike a happy medium and utilize parts of both, we will be able to clarify certain perplexing problems in high blood pressure cases.

Five of the patients were definite diabetics and of these, two had demonstrable nephritis as evidenced by rather marked nitrogen retention and clinical findings. Six were clinically chronic nephritis and all retain abnormal amounts of non-proteid nitrogen. The

three remaining cases are apparently essential hypertension with no demonstrable evidence of nephritis. Six of the patients had persistently low phenolsulphonephthalein output. Two of these were diabetics but there was apparently no relation between the phenolsulphonephthalein output and the height of blood sugar level.

I have chosen four typical cases from the different groups, whose records will be given in full and a careful scrutiny of the variations in carbohydrate metabolism displayed by these different types will tend to substantiate the statement made above, referable to the explanation of hyperglycemia in chronic nephritis and at the same time will tend to show that the note in the previous paper relative to the utilization of blood sugar determinations as kidney function tests, is not without basis.

I. A case of essential hypertension associated with severe diabetes—

Mary R. Case No. 23717. Colored. Age 67, Weight 143 pounds. Height 5 feet, 6½ inches. Entered the clinic 7-15-21. Complaining of pain under sternum, slight shortness of breath on exertion. Thirst, polyuria and loss of weight. Blood pressure 200-100. Two years ago she had a stroke involving the vocal chords and right arm. She rapidly recovered the use of her arm and speech was restored. About the same time she noticed nocturnal polyuria, later frequent urination at all times. Eight months ago began complaining of thirst and has lost thirty-four pounds since that time. She has had occasional attacks of tonsilitis for years and at present had ragged, infected tonsils and a very high grade dental sepsis. On admission her urinalysis was as follows:

Straw colored—Neutral—Spg. 1028. Albumen, trace. Sugar, 4 per cent. No diacetic acid or acetone. Ammonia, 1.3 in 24 hours. No red blood cells, pus, or casts. 24 hour output, 2600 cc.

Blood Urea Nitrogen.....	10	mg. per 100 cc.
Blood Creatinine .....	1.4	mg. per 100 cc.
Blood Sugar .....	300	mg. per 100 cc.
Phthalein .....	20%	in two hours

## GLUCOSE TOLERANCE TEST, 7-18-21.

after three days low carbohydrate diet.

	Blood	Urine
Fasting .....	170 mg.	1.2%
1st hour .....	360 mg.	3.4%
2nd hour .....	450 mg.	4.0%
3rd hour .....	400 gm.	3.6%
4th hour .....	320 mg.	2.8%

A Mosenthol test on admission showed a definite high fixation of specific gravity and it is rather interesting to note in subsequent tests, a general lowering of the specific gravity with finally fixation between 1010 and 1018. When sugar free, two months admission. We have commented on the frequency of low fixation of specific gravity in hypertension cases.

Variation	Sugar	Blood Sugar
7-15-21—1.025-1.042 .....	4%	300 mg.
8-8-21—1.010-1.018 .....	No	130 mg.
9-2-21—1.010-1.018 .....	No	125 mg.

## II. A case of essential hypertension.

Joseph G. Case No. 26536. Colored. Age, 54. Weight, 240. Height, 5 feet, 9 inches. Entered clinic 3-9-22. Complaining of shortness of breath, palpitation, swelling of feet and ankles, nocturia and headache. He has weighed over 200 pounds for the past ten years and has always been in good health until three months ago when he noticed slight shortness of breath on exertion with occasional attacks of headache and slight swelling of ankles. His symptoms have gradually increased in severity. At present his blood pressure is 190-120. Heart markedly enlarged to left with a rather loud systolic murmur at the apex. There are musical rales at the bases of both lungs. Marked pitting on both tibiae with no evidence of ascites. Throat, tonsils have been removed. Teeth, marked pyorrhea with 3 apical abscesses.

URINALYSIS: Amber. Spg. 1026. Acid. Albumen, negative. Sugar, negative. Diacetic and acetone, negative. Ammonia 1.4 gm. in 24 hours. No pus. No casts.

Non-Proteid Nitrogen.....	28.5 mg. per 100 cc.
Blood Urea Nitrogen.....	11.21 mg. per 100 cc.
Blood Sugar.....	136 mg. per 100 cc.
Blood Creatinine .....	1.4 mg. per 100 cc.

## GLUCOSE TOLERANCE TEST.

	Blood Sugar	Urine Sugar	Non-Proteid Nitrogen
Fasting .....	136	0	28.7
1st hour .....	194	0	30.6

2nd hour.....	156	trace	44.4
3rd hour.....	145	0	27.5
4th hour.....	130	0	31.6
5th hour.....	110	0	20.0

In order to see the manner in which this patient converted proteid into sugar he was given a meal of 100 gm. steak on a fasting stomach and blood sugar and non-proteid nitrogen determination made in exactly the same manner as with the glucose tolerance test.

	Blood Sugar	Urine Sugar	Non-Proteid Nitrogen
Fasting .....	111 mg.	0	21.8
1st hour .....	116 mg.	0	22.8
2nd hour .....	118 mg.	0	29.4
3rd hour .....	118 mg.	0	45.0
4th hour .....	152 mg.	0	29.9
5th hour .....	143 mg.	0	18.2

The glucose tolerance test gives a curve quite within normal limits except that his fasting blood sugar is a little high. The curve following the protein meal was made several days later with the patient on a low caloric diet and shows nothing of unusual interest.

## III. A case of hypertension with beginning interstitial nephritis associated with severe diabetes.

Margaret W. Case No. 3522. Colored. Age, 54. Weight, 183. Height, 5 feet, 6½ inches. Entered clinic 10-26-21. Complaining of a burning, aching sensation in back. Loss of weight, nervousness, headache and frequent urination. Six months ago she weighed 245 pounds and about that time began to complain of dizziness, headache, slight shortness of breath on exertion, tingling of hands and feet, swelling of ankles and blurring of vision. She also began to urinate frequently at night and in the day time. These symptoms have grown progressively until at present she is up five to eight times at night to urinate. She is markedly short of breath and vision almost entirely blurred. Her blood pressure is 200-100. Her tonsils are injected and pus can be expressed from both sides. She has a high grade pyorrhea but no devitalized teeth. Her heart is enlarged slightly to the left but no murmurs are present. Her lungs are clear. There is marked pitting over both tibiae. No ascites.



URINALYSIS: Straw color. Acid. Spg., 1.031. Sugar, 2.6 per cent. Albumen, positive.

Hyalin or granular casts. 50-20 pus cells. No diacetic or acetones. Has two hour specific gravity variations between 1.030 and 1.041. She excretes 4.2 grams sodium chloride per 100 cc.

10-26-21

Blood Urea Nitrogen..... 25 mg. per 100 cc.  
Creatinine ..... 1.9 mg. per 100 cc.  
Blood Sugar.....295 mg. per 100 cc.  
Phenolsulphonephthalein .....65% in 2 hours

11-20-21

Blood Urea Nitrogen..... 14.01 mg. per 100 cc.  
Creatinine ..... 1.6 mg. per 100 cc.  
Blood Sugar.....295 mg. per 100 cc.

#### GLUCOSE TOLERANCE TEST—12-12-21.

	Blood Sugar	Urine Sugar
Fasting	290 mg.	2.6
1st hour	420 mg.	3.6
2nd hour	480 mg.	4.8
3rd hour	530 mg.	4.8
4th hour	490 mg.	3.4

Note the delayed apex of the curve and the high level much above fasting at the end of four hours. This patient showed no glycosuria when her blood sugar was below 280 mg. per 100 cc.

IV. A case of hypertension with high grade nephritis—impending uremia.

Howard. Case No. 22618. White. Age, 42. Weight, 167. Height, 5 feet, 10½ inches. Entered clinic 1-5-22. Complaining of headache, blurring of vision, shortness of breath and swelling of feet. He gave a history of scarlet fever at the age of 16 years with nephritis following. He enjoyed good health with the exception of frequent attacks of sore throat, until one year ago, when he began complaining of headaches, rapid loss of vision and shortness of breath. He has been incapacitated for work most of the time since. Has had to get up from one to four times at night to urinate until recently he has passed only a small amount of highly colored urine. His tonsils are red and contain pus. His teeth are poorly kept, marked pyorrhea and several apical abscesses. He has had a well marked hemorrhagic retinitis. His heart is widely dilated and there are murmurs and musical rales scattered throughout his chest. His ankles are quite edematous. He is quite

short of breath. His blood pressure is 300-160. Blood count—Haemoglobin, 70. Red cells, 3,800,000. White cells, 13,600, with 72 per cent polynuclear.

URINALYSIS: Reddish brown. Acid. 1.015. Albumen heavy band. Sugar, negative. Diacetic and acetone, positive. Many red blood cells, pus and hyaline and granular casts.

Blood Urea Nitrogen..... 69.12 mg. per 100 cc.  
Creatinine ..... 9.2 mg. per 100 cc.  
Non-Protein Nitrogen.....105 mg. per 100 cc.  
Blood Chlorides.....6.4 mg. per 100 cc. plasma  
CO2 Comb. of blood.....36  
Phenolsuphonephthalein .....5% in two hours

#### GLUCOSE TOLERANCE TEST.

	Blood Sugar	Urine Sugar	Non-Protein Nitrogen
Fasting	90 mg.	0	146.4 mg. per 100 cc.
1st hour	198 mg.	0	225.6 mg. per 100 cc.
2nd hour	202 mg.	0	171.2 mg. per 100 cc.
3rd hour	209 mg.	0	142.2 mg. per 100 cc.
4th hour	247 mg.	0	104.1 mg. per 100 cc.

In this case we have a normal fasting blood sugar although we must remember the patient had been on a milk diet for several days prior to this test. His curve after the glucose meal shows a gradually increasing rise to a rather high level, reaching the apex at the fourth hour. There was no glycosuria during the test.

#### DISCUSSION.

Unquestionably, as Harnman and Hirschman have pointed out, a profound change in carbohydrate metabolism exists in cases of nephritis. Some of them showing glucose curves, not unlike those found in diabetes. When there is marked interference of renal function, very small amounts of sugar or none appear in the urine although the blood sugar may reach 280 mg. per 100 cc. No satisfactory explanation of this hyperglycemia has been offered although the suggestion has been made that some disturbance of the adrenals or other endocrine glands may be responsible for the hyperglycemia and high blood pressure.

To me, the striking points brought out in this study are:

1. When we have a well defined weakness in carbohydrate metabolism, i. e., definite diabetes, as in Case No. 1, we have a rather typical diabetic blood sugar curve with a urinary

sugar curve which follows very closely in that proportional levels are reached at about the same time.

2. With a slightly disturbed renal function in the same general type of case, i. e. Case No. III, we have our curve showing a later apex, a considerably higher level at the end of four hours and a urinary sugar curve about the same as No. I.

3. In cases where definite diabetes is lacking and little or no change in metabolism is demonstrable, i. e. Case No. II, we have a curve suggestive of a mild diabetic with early apex not excessively high with slight glycosuria.

4. In non-diabetic cases with high grade nephritis and marked metabolic disturbances, as evidenced by high grade nitrogenous retention, we have a curve beginning at normal with a rather high apex at four hours without glycosuria. It would seem rather difficult to explain this curve on a basis of purely metabolic unbalance. I think that this case and Case No. II show that the high blood sugar with no glycosuria, can only be explained on a basis of poor renal function and that in this particular type of case, we may utilize high blood sugars without glycosuria as indicating poor kidney function.

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### Non-Surgical Drainage of the Gall Bladder

DR. MILTON HAHN, Arkansas City, Kan.

Read at joint meeting of Cowley and Sumner Counties, Kansas, and Kay County, Oklahoma, at Arkansas City, Kan., June 15, 1922.

I wish to present the histories of three personal cases.

Case 1. Mrs. R. G. C., a large, obese woman, aged 25, came to me in January of this year, complaining of jaundice. She gave a history of indigestion of five years duration with

symptoms referable to the right upper quadrant of the abdomen, and several typical severe attacks of gall stone colic. One week before I saw her she had an attack of colic followed by symptoms of biliary obstruction which persisted and were present at the time of my first examination. These symptoms were intense jaundice of the skin and sclerae, clay colored stools, bile in the urine and an enlarged liver extending to three finger breadths above the umbilicus.

Operation being refused, I attempted to drain the gall bladder by means of the duodenal tube. To my surprise I obtained a free flow of bile and she began passing bile in the stools. She had ten treatments at intervals of about three days and made an uneventful recovery.

Case 2. Mrs. W. B. C., a large, well nourished woman, aged 42, was seen last March. She gave a history of indigestion for the past five years with pain in the right upper quadrant but no gall-stone colic. She had an extensive papular eczema which covered the front of the chest and neck and both forearms, with intense itching. This eruption had been present for six months and had persisted in spite of various forms of local medication. The gall-bladder bile, withdrawn through the duodenal tube, was very dark and thick and contained numerous pus cells and non-motile bacilli. Eight treatments were given in this case at first twice a week and later at weekly intervals. The skin eruption cleared up entirely and quite rapidly, without any local treatment and the digestive disturbances disappeared.

Case 3. Miss M. F., aged 32, presented herself last November complaining of long standing indigestion. She had been on a milk diet for several years. She was constipated and had severe attacks of indigestion after almost every meal and particularly during the night. These attacks were characterized by fullness, distress and belching of great quantities of gas, and at times were so distressing that she feared she would die. She was a thin, pale woman, but otherwise physical examination was practically negative. X-ray examination



showed ptosis of the stomach and colon. Gastric analysis after an Ewald test meal gave HCl 30, total acid 75. Results of stool, urine and blood examination were negative, and the blood Wassermann was negative.

After non-surgical biliary drainage, the gall bladder bile obtained was almost black and very thick, the bile from the ducts was very thick and cloudy and had almost the appearance of milk, and the bile from both sources contained a great many pus cells. This patient received a total of thirteen treatments and was greatly benefitted. She is now on a general, liberal diet, has a natural bowel movement each day without laxatives, and does not complain of any indigestion whatever.

These three cases present typical examples of the therapeutic results of non-surgical biliary drainage. The first is a remarkable case and must be interpreted as the extraction of a small stone from the ampulla of Vater. The second case is a toxic dermatitis secondary to a focal infection in the gall bladder. The third case is typical of many cases in which gall bladder drainage has given splendid results in my hands. These are chronic, indefinite, often severe cases of indigestion with no localizing symptoms, caused by a low grade infection in the biliary tract with stasis of bile.

A brief history of this method of treatment may be of interest. The late Professor Meltzer of New York in his important studies of magnesium sulphate, found that solutions of this salt when applied directly to the mucous membrane of the duodenum, caused dilatation of the duodenum, relaxation of the sphincter of Oddi at the opening of the common duct, contraction of the gall bladder and bile ducts and expulsion of bile into the duodenum<sup>1</sup>. A similar observation had been made by Doyon in 1894 in the course of studies on the nerve supply of the bile passages<sup>2</sup>. Meltzer's observation was published in 1917 and was applied clinically by means of the duodenal tube by Vincent Lyon of Philadelphia, who published his first report three years ago<sup>3</sup>.

The procedure is quite simple. The duodenal tube is passed, a 25 per cent solution of

magnesium sulphate injected at appropriate intervals and the bile withdrawn by suction. Lyon was able to separate the bile obtained in this manner into various portions, a dark-colored "B" bile, which he supposed to come directly from the gall bladder and lighter colored portions coming respectively from the common duct and the hepatic ducts. These various portions are in fact, easily differentiated. They may be examined chemically, morphologically and bacteriologically and important diagnostic data obtained.

I do not wish to dwell upon the diagnostic features of this procedure, as it would make this paper too long. Personally, I think the most important diagnostic feature is the gross appearance of the specimens. There is a striking contrast between the clear golden bile obtained from normal individuals and the thick, cloudy, muco-purulent specimens found in many cases. However, I wish to emphasize the therapeutic value of biliary drainage in various conditions. Frank Smithies of Chicago has recently published a series of some 700 cases in which he used this method of treatment, and I wish to give a list of some of the conditions in which he reported good therapeutic results<sup>4</sup>.

He states that it is a mistake to attempt the relief of obstructive lesions, i. e., calculi as tumors, but that the treatment is indicated for the purpose of preventing bile stasis, eradicating infection and improving hepatic function. He had good results in the following conditions:

1. Acute cholelithiasis, cholecystitis or hepatitis either as a local infection or as a part of a general infection, e. g., scarlet fever, pneumonia or typhoid.

2. Hepatitis with jaundice of toxic origin, notably after giving salvarsan.

3. Biliary stasis associated with cardiac insufficiency, cirrhosis or severe anemia.

4. Dyspeptic or bilious attacks in conjunction with migraine and epilepsy.

5. Rheumatic conditions with a probable local infection in the biliary tract.

6. Many cases of intestinal stasis and mucous colitis.

7. Biliary stasis persisting after operations on the biliary tract.

8. Biliary stasis with low grade infection not complicated by gross mechanical defects.

Lyon further suggests a number of diseases for which we have at present no satisfactory means of treatment and in which biliary drainage should be attempted for the purpose of stimulating hepatic and pancreatic functions. These are hemolytic jaundice, splenomegally, Banti's disease, pernicious anemia, biliary cirrhosis and diabetes and some favorable results have been reported in this field.

Now, all of us have smiled at the old doctor who attributed all ills to a sluggish liver and bombarded his patients with pills to stir that organ into renewed activity. Do not laugh at the old fellow any more, for your old-fashioned brother has arrived in polite society.

(1) Meltzer, S. J., *Am. J. M. So.*, 153:469, (April) 1917.

(2) Doyon, *Arch. de Physiol.* 1:19, 1894.

(3) Lyon, B. B. V., *J. A. M. A.*, 73:980, (Sept. 27) 1919.

(4) Smithers, Frank, *J. A. M. A.*, 77:2036 (Dec. 24) 1921.

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### Facial Expression and Its Psychology

A. A. ALLEN, M.D., Colby.

Read at a joint meeting of the Ninth and Tenth Councilor District, Colby, April 19, 1922.

The human face is said to be the mirror of the soul, because it reflects not only the static intelligence of the mind, but also betrays its transient emotions and passing impulses. The face is the servant of the emotions. It mirrors the feelings and gives expression to the impulses. It is the visible record, the map of the heart, advertising the character of the man to all who care to read. It is the herald of the heart, proclaiming the man. It betrays the impulses which underlie his actions. The face also serves the mind when it is affected by the heart and the emotions; and as most actions and thoughts are caused by the emotions, the face is often summoned to picture forth the feelings that affect volition. It thereby reflects the mind by betraying the

impulses that prompt thoughts or actions. It is the mirror of the living soul—not the house in which it lives nor the machine which it moves. As Sir Thomas Brown said long ago "There are mystically in our faces certain characteristics which carry in them the motto of our souls." The face is the expressional area, par excellence, wherein the physiognomy of the individual as revealing the character, is most indicated. The face is, indeed, physiognomy condensed. While it is but a factor of the sum total of the physiognomy of the individual, as expressed in all parts of the body, it is the most important factor, and is far more expressive than any or all of the other parts. Physiognomy is merely a division of physiology—not an occult science for the reading of character and indicates the impress of psychic influence upon physical structures; i. e., the body takes the impress of the mind and heart, and their visible appearances are in the outward form and peculiarities of the individual. And thus indicating character, the physiognomy of the face is the concentrated expression of the peculiarities of the mind and heart. While character is revealed in all parts of the body and their motions—the trunk and its carriage, the limbs and their gestures, and the walk, the head and its poise, the dress and its disposal—it is in the face that it is most clearly written. Indeed, very early in the history of the race it was noticed "that the good and evil passions by their active exercise stamp their impress upon the face, and that each particular passion has its own expression. From an early age of human thought this fact attracted philosophical consideration." As the "Son of Sirach" had it, "the heart of man changeth his countenance, whether for good or evil." Therefore the expressional duty of the face is to symbolize character. In common with the physiognomical functions of other parts of the body, the face assists in symbolizing the man, and depicts him as he is, in unmistakable signs. It is superior to them also, in that it is the especial messenger of the emotions, and exaggerates the manifestations of character which the less effec-



tive parts merely indicate. The other parts bear a passive share in this symbolical work, but the face is active and aggressive.

The symbols are not occult and secret and known only to the initiated, but are so open and plain that even a child may read and know plainly and simply the heart of the wearer of them. Experience and long and close observation of men increases the skill of and faculty in reading faces aright; but yet the power is instinctive in all men, for it is born with them, and is exercised unconsciously from the cradle. "I am much of Lavater's opinion," says Cowper, "and am persuaded that faces are as legible as books, and are less likely to deceive us; in fact, I cannot recollect that my skill in physiognomy ever deceived me." The accomplishment of reading faces by the outward natural signs and symbols of character is valuable in proportion as men have dealings and intercourse with each other; and in this day of mutual and extensive dependence the faculty is of inestimable worth to all men. As a writer well says: "Knowledge of the world includes the ability to tell or guess well, at sight, what a man is, or will do, or feel, in certain events. It comprehends a swift and intuitive perception of character as displayed and such a perception as penetrates far beneath the surface of emotional expressions right into the foundation forms in which are the true symbols of the mind's nature." Or as Henry Fielding puts it, "I conceive the passions of men do commonly imprint sufficient marks on the countenance, and it is owing chiefly to the want of skill in the observer that physiognomy is of so little credit in the world." Noble old Bacon hath it that "the lineaments of the body do disclose the disposition and mind in general; but the motions of the countenance do not only so, but do further disclose the present humor and state of the mind and will.

Although physiognomy and related science have of late years been used to be coupled with superstitions and fantastical arts, yet, being purged and restored to their true state, have a solid ground in nature and are profitable in life." But Lavater, charlatan that

he is, in spite of his sentiment and assumption of character and mind reading power and his fantastic use of physiognomy, has much to say that is of value and interest, when his voluminous observations can be culled of his intuitive and self-evolved philosophy. He says, truthfully, "He is a weak and simple person who affirms that all faces affect him alike . . . the eye, the nose, the mouth, the forehead—whether considered in a state of rest or during their innumerable varieties of action—whatever is understood by physiognomy, are the most expressive, the most convincing picture of interior sensations, passions, will, etc., in fine, of all those properties which exalt the moral nature above animal life—physiognomy is the science or knowledge of the correspondence between the external and internal man—the visible superficies and invisible contents. It is properly so called, the observation of character at rest, which is displayed in the form and appearance of the movable parts while at rest. Character impassioned is manifested by the movable parts in motion." Many grains of truth and reason may be gathered from the pseudo-scientist, Lavater's ramblings, but the gathering requires the winnowing out of a deal of chaff. In replying to scoffers, he well says: "The human countenance, that mirror of divinity, that noblest of the works of the creator shall not motive and action, shall not correspondence between the interior, and the exterior, the visible, the cause and effect, be there apparent?" Or again: "All men (this is indisputable), absolutely all men, estimate all things whatsoever by their physiognomy, their exterior superficies. By observing these on every occasion they draw their conclusions concerning their internal properties." Truly no one could dispute such a self evident truth; but then he goes on and loads it down with such a burden of fantasy about character reading that, while he disclaims any such intention, he has done little to redeem physiognomy from its degrading association with Chiromancy and the occult arts, and it remained what it had been for centuries—the synonym of quackery and imposture. Yet

he wrote a great, if curious work. It marked an era in the study of physiognomy, although his science is a burlesque and his philosophy a travesty. It has been said that "Lavater was guided in his estimates of character by a rapid intuition, by a kind of restricted perception, and his assurance of truth was but unintelligent conviction, "his great work was too popular in style, and too unsystematic, to be of any great value to the world. But to symbolize is not, indeed, the chief object of the construction of the bodily parts, nor of the features of the face. The general law of symbolic construction is that form is made to be significant without interfering with the fitness of parts for other purposes than those of symbolizing," as a writer says. In other words, the physiognomical function does not interfere with the physiological function, nor vice versa. "The features in which the symbols are most evident, have the fitness for breathing, speech, etc., or their primary design. But their being perfect for these purposes does not hinder their having also a symbolical meaning." The body and the mind, the sign and the thing signified do not correspond as effect to cause, but as things derived from a common cause and planned with one design—the divine mind has made them both according to one idea, and there is perfect congruity between them, and in the visible the invisible is revealed. In this view the study of symbols in the human form is but a branch of that which seeks them in the whole world." The argument of design is in our day, superseded by the principle of evolution; the mind and body are developed together and both partake, of course, of the hereditary influences which control the growth of both, and both are impressed also by the after experiences of the individual. "Men have in all ages been accustomed to symbolize their own ideas, and this is evidence of their consciousness that internal things may be aptly expressed in corporal form, and they are affected by them as by the ideas which they incorporate. This establishes the antecedent probability of the doctrine of symbols in the human form." Thus, certain

peculiarities of form and features are so characteristic of the man, that we naturally call them masculine, while others are essentially feminine, because they are characteristic of women. These signs symbolize the sexes. Feminine features in a man and masculine features in a woman always reveal a misplaced cast of mind. So it is with child like features in adults. So the evident coincidence between national and mental characteristics presents us with a large series of symbolic forms admitting of rational interpretation" but the weakness of the whole system of physiognomical character reading is in the inherent weakness of this same law of coincidence. A given expression and a given mental or emotional characteristic occurring together in a hundred cases might (if the observations were extended no further, be taken as revealing a relationship between them, and that they always occurred together. But if another hundred cases were observed, many exceptions to the rule would be found where the expression and the mental peculiarity occurred independently. Of course there are exceptions to all rules; but in physiognomy the exceptions are so numerous that it is unsafe, with all the experience of more than two thousand years, from Aristotle to Darwin, to attempt to formulate a law for character reading. Another series of symbols are those of the likeness of the normal and constant features in some persons to those expressions which more commonly disclose the transient or habitual states of the mind. These transient expressions, as symbols universally acknowledged, by which the natural pantomime of life is carried on, indicate in their ordinary occurrence only the present or passing state of the mind. They tell what the mind now is, but, by frequent repetition the marks of any of them may become fixed in the features, and soon they indicate the acquired character—they reveal the habitual state of the mind and tell what the mind has become. But both the transient and habitual expressions must be distinguished from those symbols which, though like them and interpreted by them, are in-



born, or which, as the features are gradually fixed, become more marked, even though the disposition which they commonly indicate may be resisted, or, by education, suppressed; for these natural, permanent expressions are among the symbols which tell, not what the mind is or has become, but what it was or might have been. That the natural propensities, as indicated by the appearance, are often subdued, is a matter of common remark. 'I have seen,' said Addison, 'many an amiable piece of deformity, and have observed a certain cheerfulness in as bad a system of features as was ever clapped together, which has appeared more lovely than all the blooming charms of insolent beauty.' It is the incongruities of physiognomy that militate against the pretenses of the character reading theories; fine physical form of features by no means indicate a beautiful soul behind the face, and no more does physical deformity mean that the soul is deformed—although we would all prefer that a beautiful soul should look out of a beautiful face. It is too often this desire to associate the two that leads to theorizing, upon the assumption that nature associates desirable internal characteristics with attractive features, and disagreeable dispositions with repulsive features; but, in reality, she does not do this at all, but gets them sadly mixed. In fact, it is impossible to bring character reading down to a rational basis, and to classify expressions into a system. Lavater and his followers tried it, and failed. We can only judge of faces by our inherited instincts and intuitions. We can do little more than the child does—judge by the conscious effect expressions produce upon our feelings. In fact, expression is a thing of the feelings, and of the emotions. It is not of the mind, and therefore defies analysis, as do all phenomena of the feelings.

—R—

### Comments by the Prodigal

#### COMMON SKIN DISEASES.

To kill the streptococcus or the staphylococcus or the mixed coccus infection in the skin, apply a twenty-five per cent ointment of salicylic acid. When the bug makes its pres-

ence known by a sharp pricking sensation in the skin or a burning sensation, with a circumscribed red speck present, one symptom or all of them, rub the ointment on the spot. If a large surface of the skin is involved, apply the ointment to the part thoroughly. Keep at it, applying the ointment to the new affected surface areas and the treatment will get the desired result. Such a case came under observation about three years ago (mixed S & S) and the skin men exhausted their prescriptions on the patient (a physician) and failed to cure him. He prescribed a twenty-five per cent salicylic acid ointment for himself and applied it as hereinbefore outlined, and cured himself. The ointment caused a slight exfoliation of the epithelium on the surface of the skin on his face where applied, but there was no other untoward effect.

The druggist hesitated to fill the twenty-five per cent prescription until the physician assured him he knew what he was doing and had at times applied the ointment much stronger without bad, but with good effect.

Skin diseases and affections are a nightmare to the general practitioner. And in no other affection of the human body, does he appear to be more helpless and inefficient. Two years ago the writer had an attack of hives. Lumps raised up in his skin all over his body. The stinging, itching, burning sensation crazed him. He called in a leading physician who prescribed Seidlitz powders, salts and other things and said "in about three days the disease will run its course." Crazed as he was and suffering agony prescribed for the condemned, where there is weeping, wailing and gnashing of teeth (for those who have teeth) he tiraded in all kinds of language polite society knows against his doctor friend and the profession for ignorance and inability to relieve human suffering, in the little things that so distress us. At this juncture of his tirade, his daughter suggested rubbing his body all over with the juice of a raw lemon and then rub soda all over the body, and in a few minutes take a bath, which he did. This treatment relieved his distress from three to four hours each

treatment, which time he slept. The treatment had to be repeated every three or four hours for about two days, making the seance in all about three days, as the doctor had prognosed. It may be that vinegar or some other acid with the soda would have done as well as the lemon juice. If so the vinegar would have been more convenient and economical.

Some persons, especially the aged, are annoyed, usually about bed hour, with intolerable itching of the feet, ankles and legs. There is no perceptible cause for it. When scratching quits feeling good and the epithelium is roughed up by scratching and the skin is red and the scratching burns and hurts, lemon juice applied to the irritated surface of the itching will give relief in a few minutes. Sometimes it relieves the parts for several days. Having to repeat the application is troublesome, but the relief and comfort it affords amply repays the repetition.

#### EASY DELIVERIES.

"And the King of Egypt spake to the Hebrew midwives of whom the name of the one was Shiphrah, and the name of the other Puah; and he said: When ye do the office of a midwife to the Hebrew women, and see them upon the birth stool: if it be a son, then ye shall kill him; but if it be a daughter, then shall she live.

And the midwives feared God, and did not as the King of Egypt commanded them, but saved the men children alive. And the King of Egypt called for the midwives, and said unto them: Why have ye done this thing and have saved the men children alive? And the midwives said unto Pharaoh: Because the Hebrew women are not as the Egyptian women: for they are lively and are delivered ere the midwife come unto them." (Exodus 1. xv:xix.)

The Hebrew women were slaves and the Egyptian women were free and civilized.

In the Journal of the Lewis and Clark expedition, it is recorded that an Indian woman on the march, who had been leading two of four pack horses, halted at a rivulet about

a mile behind and sent on the two horses by a female friend. On inquiry of Cameahwait the cause of her delay, he answered with apparent unconcern, that she had just stopped to lie in, but would soon overtake them. "In fact we were astonished to see her in about an hour's time come on with her new-born infant, and pass us on her way to the camp, seemingly in perfect health."

Army surgeons, during the late Indian wars, report similar cases of easy and quick deliveries of Indian women.

Easy and quick delivery is the rule in the lower class (?) of society at the present time and particularly in the lower class of emigrant. The higher the civilization the more difficult, prolonged and painful childbirth.

Query—(1) Is it a penalty for culture, progress and civilization? (2) Or is it one of nature's ways of elimination and selection, of quality for quantity? (3) To help prevent overpopulating the earth, or to increase appreciation of life by the creature and of what man is here for? (4) Or plain self destruction of our method of civilizing?

#### BUSINESS.

There is an old and true saying that "if we take care of the pennies the dollars will take care of themselves." This principle practiced in the treatment of patients by the physician makes him a success.

The higher the educational qualification of the present day physician, the greater the tendency to specialism. And an ignoring, disregard or failing to attach to the little ailments of mankind the importance he should, or that the patients think he ought to and they deserve, in order to impress his patients with his worth and to keep them from the cults. One reason for such an attitude toward the minor affections of the human body by the educated physician is that he knows the limitation of medical science and is not buoyed up by ignorance in his diagnosis and prognosis as to the final result, like the charlatan cult is.

Another reason may be on the same principle that few people can stand riches. Great riches spoil them. Education is liable to spoil



a man unless he is intelligent. The success of the cults in the treatment of human ills is by their catering to the whims of their patients and magnifying their ills or imaginary ones and in their honest ignorance bonyig up their patients drooping spirits by assurances of relief. (Suggestive treatment.)

No self respecting physician will resort to any method of deception that will not bear the critical scrutiny and approval of an enlightened moral conscience. But where the regular educated medical man falls down is in looking after the big things in his practice and not giving enough attention to the little things. Trying to please himself scientifically and not accommodating himself to what the people want or think they want. It is the little things in the aggregate that make the big thing—success. Not that the big things should be neglected but that the little things should be given the attention the people demand.

Few physicians treat and comfort patients for minor ailments such as freckles, pimples, warts, moles, sores in the mouth, on the tongue, chapped lips, corns, bunions, in-growing toe nails, scaly patches on the skin, dandruff, eczema, fissures or cracks in the skin, on the hands, lips, nipples, fetid breath, foul smelling feet and a host of minor ailments, as compared with the care and treatment of paralysis, Bright's disease, typhoid fever, polyomyelitis and kindred disease. And-but-yet-cults, beauty doctors (?) are sitting by the physician's door and making more money out of this class of patients than the regular physician, who from the nature of his calling and his education, by a slight effort, could treat these patients better and more honestly. Or he sends them to a specialist. In this way he loses his prestige, impoverishes himself and teaches his patients to employ somebody else than himself, to his own detriment and that of the regular medical profession.

The doing away with cults and maintaining the prestige of the medical profession is not the suppressing of any cult for suppressing never suppresses. But doing these things better and more intelligently, doing for the

people what they want done and at the same time teaching them the facts, that they may learn and know how to discriminate between the true and the false will do something. Ending as we began with an old truism "you can take a horse to water but you can't make him drink."

Moral: Don't try to suppress the cult, but educate the people intelligently.

—R—

## BELL MEMORIAL HOSPITAL CLINICS

Clinic of Ralph H. Major, M.D.

Department of Medicine.

### PROIN'S SYNDROME.

This patient whom we have for study today is a very interesting case from several points of view. The diagnosis has been made only as the result of very careful study. The clue to the correct diagnosis came from the result of one particular examination, and it is to this that I wish to direct especial attention today. This patient is a man fifty-one years of age, who came into the hospital complaining of pain in the back, and weakness of the legs.

Family history: Negative; no history of tuberculosis, diabetes, or nervous disease.

Personal History: The patient had pneumonia when eight years of age. Four years ago a nodule which had been present for several years on the right side of his neck, began to grow. The patient consulted a physician who told him it was cancer, and began treating it with Roentgen rays, and the nodule subsided in a few months. There is no past history of cough, expectoration, hemoptysis, or shortness of breath. The gastro-intestinal history is negative.

Present illness: About one year before admission the patient noticed a dry, hacking cough, and was troubled with gas on his stomach. Shortly after that he began to have pain in both lumbar regions which radiated down to the hips. The pains have been fairly constant for a year, and are worse on the left side. The patient has been unable to work during the past year. About one week ago his legs became so weak and painful that he was unable to walk, and has been confined to his

bed. Lying flat on his back eases the pain, while bending over increases it. The patient has lost about fifty pounds in weight during the past year.

Physical examination shows a man who is poorly nourished, the skin feels dry, he looks anaemic, and has marked pyorrhea and dental caries. The neck shows several large palpable lymphatic glands of the anterior cervical chain, varying in size from one-half to two centimeters in diameter, hard and freely movable. The chest is clear on percussion and auscultation; the heart is of normal size and the cardiac sounds are clear. The blood pressure is 90 systolic, and 60 diastolic. There is a marked kyphosis. The spine shows tenderness in the lumbar region, and its movements are restricted in all directions. The abdomen is negative. Examination of the extremities shows a marked weakness of both legs, with greatly diminished knee kicks. The Babinsky phenomenon is negative on both sides. There is no patellar or ankle clonus.

Examination of the urine showed a few white blood cells, and occasional hyalin and granular casts. The blood examination shows: R. B. C. 3,100,000, W. B. C. 16,000. Hemoglobin 43 per cent, 6.7 gm. per 100 cc.

Color index .70, volume index 0.81, saturation index, 0.86.

The differential count is:

Polymorphonuclear neutrophils 92.6%.

Small mononuclears 3%.

Large mononuclears 6%.

Eosinophiles 0%.

Transitionals 0.4%.

This is a typical picture of a secondary anemia. Since the patient has been in the hospital there has been an irregular temperature, varying from 98° to 100.6° F.

These were the findings that were reported the first time this patient was shown on ward rounds. Several points stand out with distinctness. The patient gives a history of carcinoma of cervical lymph glands. Four years later he appears in the hospital with paralysis of both legs, and pain in the back. This is suggestive of a metastasis from the original carcinoma. However, this diagnosis

must be accepted with reserve, since no section of the gland was made at any time, and without microscopic study, such a diagnosis would be tentative at most.

The history that the patient gives of enlarged discrete glands persisting over a period of several years, accompanied by an anemia, loss of weight, and fever, suggests very strongly the possibility of Hodgkin's disease. A third possibility which must be kept strongly in mind, is that of tubercular lymphadenitis accompanied by tuberculosis of the bone. These were the three standpoints from which subsequent examinations were made.

The neurologist saw this patient in consultation, and diagnosed compression of the cord in the lower dorsal and first lumbar region. A Roentgen picture of this patient shows the second lumbar vertebrae to be bridged to the first, with compression of the body cord and obliteration of cartilaginous space between second and third vertebrae. The impression of the roentgenologist was that we were dealing with a tubercular or a malignant condition. The next logical step in working out the correct diagnosis of this patient consists of an excision of a gland in the neck for diagnosis, and this should always be carried out in such doubtful cases. Often, of course, such a procedure establishes a diagnosis, but does not affect the prognosis. In many cases, on the other hand, we all know the story would have been different had the diagnosis been established earlier.

A gland in the neck was excised under local anaesthesia, and the pathological diagnosis was tubercular lymphadenitis with considerable caseation. This is evidently the condition diagnosed previously as carcinoma and treated with x-ray. Subsequently another enlarged gland was excised from the inguinal region, and presented the same pathological picture. A lumbar puncture was performed, and this is perhaps the most important feature of the case to which I wish to call your attention.

The fluid when drawn through the needle was a brilliant yellow, and as soon as col-



lected in a test tube, formed a firm mass so that the tube could be everted without disturbing the clot. This phenomenon was noted first by Froin in 1903, and since that time has been repeatedly described in the literature. This condition is referred to also as xanthochromia, although it must be pointed out that xanthochromia is a more general term. Under xanthochromia we understand simply a yellowish pigmentation of the spinal fluid. In Froin's syndrome there is not only a yellowish spinal fluid, but a massive coagulation of the fluid. The majority of the cases of xanthochromia quoted in literature describe only the yellowish pigmentation, while the number that show Froin's syndrome is smaller. This condition is practically always produced by some obstructive lesion of the spinal canal, and is very frequently associated with tumor of the spinal cord.

Sprunt and Walker in 1916 collected one hundred cases of xanthochromia, and reported three examples of Froin's syndrome in cases with tumor growths of the cord. Elsberg and Rochfort reported findings in ninety-two cases of chronic spinal disease. Twelve of these patients show xanthochromia; seven of these showed also the typical Froin's syndrome, all were associated with spinal cord tumors. Levison reported one case of spinal cord tumor producing a yellow coagulating fluid.

Careful anatomical study at operation, or at autopsy, in practically all cases where this condition has been found, have shown an obstruction in the sub-arachnoid space. Tuberculosis spondylitis, intradural tuberculosis, tubercular meningitis, in addition to tumors are sometimes responsible for such obstruction. It must be kept in mind, however, in at least 70 per cent of these cases there is a tumor of the cord present. Simple xanthochromia, without coagulation, as already mentioned, is more frequently observed. A great variety of conditions may produce such a yellow fluid. It has been described in purulent and syphilitic meningitis, and following an injury to the skull or spine. I recently saw a patient who showed a yellowish fluid

after an accident, the patient falling down stairs and striking the back of his head on the floor. In such examples of traumatic origin the yellowish spinal fluid is due to minute hemorrhages into the spinal canal, and the changes taking place later in the blood are the cause of the pigmentation. Mestrazat has called attention to the yellow spinal fluid in jaundice.

In the absence of a section of gland this patient would probably have been diagnosed as a case of neoplasm of the glands of the neck with metastasis to the lumbar vertebrae. This diagnosis would have been given some additional weight by the presence of Froin's syndrome. Against this diagnosis, however, we have the pathological picture of the glands, and we are forced to conclude that this example of Froin's syndrome is produced by a tubercular spondylitis, and not by a malignant tumor. This case is additional evidence that Froin's syndrome is due to an obstructive lesion since this lesion is seen in the Roentgen plate. This tubercular spondylitis has not only produced such an obstruction, but has pressed upon the cord and caused a partial paralysis of both legs.

This patient will be treated as a case of tuberculosis of the spine. The orthopedists have advised that he be placed in a cast to immobilize the diseased vertebrae. Every effort will be made to build up his general health to aid him in overcoming this condition. The patient should be out of doors constantly, tonics will be given, and he should be on a diet containing large quantities of protein and fat.

#### Out Patient Clinic of E. T. Gibson, M.D.

##### PSYCHIATRY—MANIC-DEPRESSIVE PSYCHOSIS

Case report: E. T. negro woman, 36, married, two children.

Husband says she acts excited, talks too much and does not sleep. Patient says there is nothing the matter with her. About two months ago a neighbor who is a preacher talked to her about religion. She seemed to dwell on this and generally became very excitable. Her husband says that she "talked

silly" and worked incessantly, though he asked her to rest. She slept poorly, had no appetite and was constipated. She has lost some weight. Although she has worked very hard she has not been able to keep the house as neat as formerly, as she leaves one task unfinished to go on to another. She has mistaken strangers for friends and has insisted that the preacher next door was the Devil. She has seemed unusually happy but also very irritable.

Previous history not important. She has had no illness for years, and never had an attack like the present. Very little is known of her family history.

Examination: Tongue coated, breath foul, tendon reflexes active equally on both sides. Skin is loose as if from loss of weight. General and neurological examination otherwise negative. Wassermann test of serum negative.

Mental Status: Sits quietly and looks unduly happy. Talks a great deal and changes subject very frequently, her attention being diverted by anything she sees or hears. Her memory is good, her consciousness perfectly clear, she is well oriented, and the only false belief she expresses is that the preacher is the Devil. But she says this half jokingly.

Course: The disorder reached its maximum in a week, and remained stationary about a month. About three weeks ago she began to quiet down, slept better, talked less and began to complain of fatigue. She is now practically well.

#### DISCUSSION.

We have here a mental disorder of limited duration, ending in recovery, in which the general intelligence is not affected. It is characterized by increased physical activity which is less purposeful than normally, flight of ideas, attention easily distracted, with an overly happy yet irritable emotional state, and a tendency to misinterpret objects and misidentify persons.

It is the picture of one type of a common disorder called the manic-depressive psychosis. The features of this case may appear in others exactly reversed, that is, we may find dimin-

ished activity, slowness and difficulty of thinking with unhappiness and depression. These two opposite forms are called the manic and the depressed phases respectively. There may be all possible intermediate combinations, such as depression with over activity, lethargy with euphoria, and so forth. The symptoms may appear in all grades of severity, but the lighter grades are seldom recognized as such. They are sometimes called "neurasthenia," or may be looked upon merely as "blue spells" or periods of high spirits or of worry and apprehension.

Attacks tend to recur, and may be of the same type or quite different. Intervals between attacks may vary greatly, but usually tend to be of about the same length. The same is true of the duration of the attacks themselves. There are some individuals who remain permanently in depressed or manic states. In the latter case, if the symptoms are not too severe, we often find persons of superior energy, happiness and accomplishment.

Sometimes the attacks are so severe that the patients become dangerous to themselves or others, and may have to be segregated in special hospitals. As this is an infraction of personal liberty, it must be done by the legal authorities. Persons whose legal rights have been limited by court procedure because of mental disorder, are technically called insane. It is well to remember that insanity is a legal and not a medical concept.

The ultimate cause and method of production of the symptoms are not known, and no constant histopathological changes in the nervous system have been found. Those subject to the attacks are usually unstable emotionally during the free intervals, and if one studies the patient's family one nearly always finds a strain of emotional instability, if not a history of definite attacks.

Frequently the attacks seem to be precipitated by definite situations, and apparently the greater the predisposition to the disease, the less severe the exciting factor need be. In fact, in many cases, no exciting factor at all can be found.



A recent analysis of precipitating situations by Strecker (*Am. Journal Psychiatry*, 1922, I, 503) shows that the most frequent somatic factors are influenza, overwork and exhaustion, the climacteric, and complicated childbirth. The most common psychic factors are cruelty, poverty, illness and death of relatives, and unhappy love affairs.

The most important aspect of treatment is prophylaxis. We do not know enough about eugenics to attempt to breed a manic depressive strain out of a stock by selective mating, but one feels justified in advising against the marriage of those who have had repeated attacks. Something may be done in the direction of shielding predisposed persons from exciting factors, though even the most accessible of these, such as poverty and overwork, depend upon general economic conditions which society has not yet learned to eliminate. One of the most important considerations, especially in depressed phases, is the prevention of suicide. This danger is greatest in the forms with increased activity. Retarded patients haven't enough initiative to kill themselves, but as the various symptoms often develop and disappear independently, even retarded patients may pass through stages in which the inactivity diminishes while the depression remains. For this reason a depressed patient needs watching all the time, and particularly when he seems to be recovering. It is estimated that 40 per cent of all depressed patients attempt suicide. In general the best treatment is the regular standardized life of a special hospital. One of the great needs of the present day is for free public hospitals for the treatment of mild or temporary cases of mental disorder, to which patients may go voluntarily or on physicians certificate. At the present time the only alternative to the State hospital is the private sanatorium, which is out of the reach financially of those who need it most.

There is no specific treatment for manic-depressive psychosis. Much of the treatment must be symptomatic, such as sedatives, eliminants, etc. Naturally somatic disease should be carefully sought and treated, including

focal infections of all kinds. Apparently the removal of infected teeth or tonsils sometimes decidedly hastens recovery.

#### —R—

Evidence that is gradually being accumulated by medical men in various parts of the world provides a good basis for the belief that carbon tetrachloride, a cheap and common chemical, is a cure for hookworm in human beings. Recent reports from the Fiji Islands and Ceylon covering thousands of cases show practically 100 per cent of successes. The discovery of the efficacy of the drug in removing these parasites was made by Dr. Maurice C. Hall of the United States Department of Agriculture, who tested it on dogs and even tried out its effects on himself. His results immediately stimulated medical men in many countries to start nestgations, and favorable reports are now being received by the department. In the Bogambra prison at Kandy, Ceylon, a country where hookworm is common, this carbon compound was tried on 14 persons with marked success. Among them was a condemned criminal who offered himself as a subject for a thorough test. He was given a maximum dose of 10 cubic centimeters of the drug, which removed 55 hookworms. Twenty-two days later he was executed. A post-mortem examination showed that all these parasites had been removed. The other convicts apparently were completely freed of the parasites by much smaller doses. The other convicts apparently were completely freed of the parasites by much smaller doses. No effects other than slight dizziness and a sensation of weight in the stomach were noticed in the case of those receiving less than 10 cubic centimeters of the drug.

#### —R—

The average length of life has increased, during the insurance age, from 49.2 years in 1901 to 54.3 years in 1920. So says the last report of the Metropolitan Life Insurance Company. The Public Health Service is credited largely for the result. More scientific examinations may have had something to do with the statistics of the mortuary table.

# THE JOURNAL

*of The*

## Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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### The Standard of Educational Requirements for License to Practice in Kansas

Under date of June 5 a letter was received from Dr. Preston enclosing a copy of a letter from Dr. Colwell, Secretary of the Council on Medical Education of the American Medical Association. Copies of these letters were submitted to the Board of Registration and Examination and a statement from them requested. Under date of July 27th a letter from the Secretary of the Board was received, and it, together with the letter from Dr. Preston and Dr. Colwell, is reproduced below:

F. L. PRESTON, M.D.

220 West Central Ave., El Dorado, Kan.

June 5, 1922.

W. E. McVey, Editor,  
The Journal, Kansas Medical Society,  
Topeka, Kansas.

Dear Editor:

I am inclosing to you a copy of letter which speaks for itself.

For some years the Kansas Board has admitted by reciprocity recent graduates of very inferior schools. The result has been that we are the laughing stock of the medical profession from an educational point of view. We are also very justly losing the confidence of the people of the state. They have so often been unfairly dealt with, so carelessly treated, and so often unnecessarily operated that they readily grasp any sort of false systems that come along.

I think that you will agree with me in that the

men from class "C" schools are usually men who have gone into the profession from a purely commercial motive. They secure the "M.D." as cheaply and as quickly as possible and proceed to "gig" the public at every opportunity. They have been taught neither ethics nor thoroughness in diagnosis and treatment.

It is not possible for us to so get this matter before our board that some remedy can be supplied.

Thanking you, I am very truly yours,

F. L. PRESTON.

AMERICAN MEDICAL ASSOCIATION  
Council on Medical Education and Hospitals  
Chicago, Ill., March 29, 1922.

Dr. F. L. Preston,  
220 West Central Avenue,  
El Dorado, Kansas.

Dear Doctor Preston:

Your letter of March 23 has been referred to this department for reply.

The reports of those licensed in Kansas during the past year show that only graduates of class A school (medical) have been licensed by examination, although several graduates of medical schools rated in class B and class C have been licensed through reciprocity. This fact will be brought out in the forthcoming State Board Number of the Journal, which will be issued April 29 and will be found in Table I. Figures for the preceding year are shown in the same table on page 1245 of the Journal of April 30, 1921.

May I suggest that after that table is issued, the matter be presented to your state medical society and that a vigorous protest be made by that organization to the state board of medical examiners. You might at the same time have a copy of the protest sent to the governor of the state. It might be diplomatic to take the matter up first with the members of the licensing board to see whether persuasion would not accomplish the result desired.

Very truly yours,

N. P. COLWELL, Sec'y.

Council on Medical Education and Hospitals.  
STATE OF KANSAS

Board of Medical Registration and Examination.  
Office of A. S. Ross, M.D., Secretary.  
Sabetha, Kan., July 27, 1922.

Dr. W. E. McVey,  
Topeka, Kansas.

Dear Doctor:

In reply to your letter I can advise that the Kansas Board adopted a resolution in February, 1917, regarding "A," "B" and "C" classifications of colleges by the American Medical Association and that said resolution permits graduates of "A"



class colleges only, to enter the examination before the Kansas Board after February 1st, 1922. Before we could legally enforce that resolution the various medical schools had to have four years notice to protect first year matriculates. So you see we can go no higher on a medical standard for Kansas.

As regards reciprocal registration, we expect the thirty-nine states with which we have reciprocity to maintain an equivalent medical standard to that of Kansas in certifying their licentiates to us for reciprocal licenses. While we cannot adopt or maintain a standard for any other state, we can withdraw reciprocal relations from it at any regular meeting, as we cannot differentiate in the consideration of reciprocal applicants from any other state when certified to us by the Board in such state. In other words, we cannot accept John Doe and reject John Jones because of "A," "B" or "C" classifications prior to the date of our resolution not to recognize "B" and "C" class graduates. We are trying to maintain a high standard for Kansas.

Yours very truly,

A. S. ROSS, Secretary.

Those familiar with the medical affairs of Kansas for the past twenty years will admit that the State Board of Medical Registration and Examination has never, since the law creating it was passed, been composed of men more representative of the profession. In order that those who have failed to keep track of the appointments may know who its members are, we give their names herewith. Dr. C. W. Jones, Olathe, is president. Dr. A. S. Ross, Sabetha, is secretary. The other members are, Dr. A. J. Anderson, Lawrence; Dr. C. F. Menninger, Topeka; Dr. H. A. Dykes, Lebanon, now in U. S. P. H. service in Kansas City; Dr. G. R. Dean, McPherson; Dr. Geo. M. Gray, Kansas City. Three of them are graduates of regular schools, two graduates of Homeopathic schools, and two graduates of Eclectic schools. One of the Homeopathic graduates also holds a diploma from a Regular school. Six of the seven members of the Board are members of the Kansas Medical Society.

The letter from the Secretary of the Board would imply that it is the desire and purpose of these men to place the standard of requirements for medical licensure in Kansas on the highest plane consistent with the laws of the

state and the demands of the profession for reciprocity with other states.

This matter of reciprocity is regarded as of considerable importance by a majority of the profession and when it was reported that the Kansas Board had ceased to reciprocate with other states many letters of protest were received by the Journal and doubtless also by the Board.

The report of the Council on Medical Education shows that 254 physicians left Kansas for other states during the five years from 1917 to 1921. During the year 1921, the report shows, 54 Kansas physicians were licensed through reciprocity by other states, ten in California, ten in Oklahoma, six in Missouri, five in Colorado, five in Texas, five in Washington, three in Nebraska, two each in Illinois, Iowa and New Mexico, one each in Maryland, Michigan, New York, Ohio, and Wisconsin. From this it will be seen that 43 of the 54 Kansas physicians who were admitted to practice in other states through reciprocity, located in California, Oklahoma, Missouri, Colorado, Texas, Washington and Nebraska. All of these states admit both Class B and Class C graduates by examination.

There were 51 licenses granted by the Kansas Board through reciprocity during the year 1921. The report shows that 23 of these came from Missouri, 6 from Illinois, 6 from Tennessee, 3 from Oklahoma, two each from Pennsylvania and Wisconsin, and one each from Colorado, Iowa, Maryland, Massachusetts, Michigan, Nebraska, Ohio, Texas, and Virginia.

It appears to be a fairly even exchange, as to numbers, except with Missouri, California, Oklahoma, Colorado, Illinois, Texas and Tennessee. The ratio of reciprocity certificates accepted by the Kansas Board to the Kansas certificates accepted by these states in the order named is 23-6, 0-10, 3-10, 1-5, 6-2, 1-5, 6-0.

Kansas has established reciprocal relations with, and its licenses are recognized by, 39 states, Oregon having been added to the list since it was last published. These states are:

Alabama, Arkansas, (Reg. and Hom.), California, Colorado, Delaware, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, Nevada, New Mexico, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Oregon. Of these 39 states, 24 licensed by examination the graduates of Class C schools during the year 1921. There were only four of these states which did not license by examination graduates of either Class B or Class C schools.

The report of the Council shows that only eight states, including Kansas, did not license by examination either Class B or Class C graduates. These are Arizona, Kansas, Montana, Nevada, New Mexico, North Carolina, North Dakota, Vermont. The number of applicants licensed by examination by these eight states was 161, while the total number licensed by examination by all the states, U. S. territories and possessions, was 4211, and 334 of them were Class B and 264 were Class C graduate. In the eight states mentioned 156 applicants were licensed through reciprocity and of these 15 were graduates of Class B, and 5 of Class C schools. There were licensed through reciprocity by all the states a total of 2,137 applicants of whom 251 were Class B and 130 Class C graduates.

There are twelve other states which did not admit Class C graduates by examination in 1921. Of the twenty states which do not admit Class C graduates by examination, eight do admit them through reciprocity with other states, but in 1921 these eight states admitted only 19 of the 130 admitted by all the states.

The states which admitted by examination the largest number of Class C graduates were California 32, Colorado, 24; Connecticut, 52; Illinois, 43; Massachusetts, 42; Pennsylvania, 14; Arkansas, 12. Those admitting the largest number of Class C graduates by reciprocity were California, 15; Connecticut, 14; Oklahoma, 20; Texas, 31.

According to the A. M. A. Directory (1921) the total number of physicians in the eight states which did not admit either Class B or Class C graduates by examination is 7,612 and the total population is 6,642,414. Five of these states have less than 600 physicians each, and four of them have less than 500,000 population each.

In the face of these data which have been taken from the last report of the Council on Medical Education of the American Medical Association, of which Dr. Colwell is secretary, we do not feel capable of criticizing the Kansas Board of Registration for any laxity on its part in maintaining a standard of educational requirements for licensure in Kansas which compares so favorably with that of other states and particularly those in which are located the large centers of medical education. We note that New York, Illinois, Pennsylvania, Massachusetts, Missouri and California are among the 29 states that recognize Class C schools.

We are not willing, after an analysis of the report, to criticize the Board for admitting four Class C graduates on certificates from other states in 1921, if by refusing to do so the reciprocity privileges of the physician of Kansas would have been jeopardized.

The pages of the Journal are open to any member of the Society that cares to express an opinion on this subject, and particularly to those who have received different impressions from the data given in the report of the Council.

## — R — CHIPS

Manicuring is practicing the laws of hygiene and health. Dirty or ebony tipped finger and toe nails are carriers of disease from one part of the body to another, aside from being an advertisement of sloth, filth and dirtiness of the possessor of them.

The picture of emanations from the mind which psychologists and physicists have been taking and called them *aurae* are now known to be the escape of effete matter from the



body, when the fellow gets all het up in the seance. The most pronounced and blackest halo, aura or ring surrounds the deceptive liar.

To get the sympathy of the audience for the drunkard's wife, the speaker said, "There she sits at midnight, rocking the cradle with one foot and wiping her tears away with the other one.

Calories should not be substituted for vitamins and vice versa. Both are essential to life. Why? We don't know but they are and that is enough to know to continue them. Later we expect to know, why is a vitamin?

The 'Eskimo Pie' is made by dipping ice cream into hot chocolate without melting the cream. Christian Kent Nelson did it and within a year it has made him a near millionaire.

Many chemical tricks are yet in the discovery. Nature keeps us guessing and experimenting to occupy our time, increase our anticipation and brighten our future.

This is the newspaper account of how it's did. While chemical knowledge had to do with making the pie, art had its share by covering the lump of ice cream with the chocolate and freezing the whole quickly. Time was a consideration in the making.

Moral: A little knowledge worked at the right time and place in making what the people want or think they want puts a man quickly on easy street.

Cremation is the ideal and hygienic method of disposing of the dead body. The statement needs no iteration to the thinking, intelligent physician. There is no need of harrowing up gruesome thoughts in his mind to convince him of the economic and hygienic as well as the sane and scientific disease preventive measure, and especially in urban sections of the commonwealth.

The medical man is the pioneer and teacher in hygiene and measures to preserve health and prevent disease. In doing this he will have to impress upon the laity the gruesomeness of nature's method in returning the body

to the dust as it was, and that of the purifying, refining process by fire. Of the clean urn, holding the aseptic ashes or remains of the body returned to earth as was by fire, as compared with the watersoaked, decaying, offensive smelling, worm eaten, infested body, buried in the ground or even in the mausoleum, aside from the danger to the living.

It is not necessary for the physician to make himself obnoxious to his clientel or the community in advocating the facts. But he should have a well grounded opinion, formed of the danger to the living by earth burial, and the greater respect given to the dead by incineration, when asked for an opinion or when opportunity presents itself to educate the people in an essential method of preventing disease and freeing them from custom, prejudice and superstition.

An intelligent understand of what is best by the people creates a right sentiment.

"Economy, hygiene and intelligent sentiment favor incineration of the dead body over that of earth burial."

The barefoot season is on for the cure of corns. It is the stone-bruise time of year also. To cure the corn and avoid the stone-bruise wear sandals. But in wearing sandals you may cultivate flat foot unless you heel the sandals.

"The oriental deep breathing exercises" should be practiced more generally. Aside from benefitting the health of the breather, they are diagnostic. "The practice consists of pressing a finger on the side of the nose, so as to close the nostril, breathing in through the other nostril, breathing out of the first nostril in the same manner and then reversing the process." Normal breathing is through the nostrils. The potency of each nostril is learned by the oriental breathing exercises.

Dietitians and food faddists urge well people to watch their weight. "After 35 or 40 years of age if their weight increases 15 to 30 pounds they should take careful measure to reduce it. It will require constant vigilance. But it pays."

Yesbutter does not know which brings in the more happiness while a fellow is alive above ground. To eat, grow fat, be jolly, or practice eternal vigilance in dietary, grow thin, dyspeptic and morose. Don't do either?

Continual watchfulness of the intake of food in calories, vitamins and daily heftings does not leave any time for other business or fun. Aside from this, there is the liability of the victim becoming self centered, with a one track mind not able to carry anything for exchange.

It appears to be the consensus of opinion that the promiscuous use of quinidin is dangerous in auricular fibrillation. Some fatalities have been credited to quinidin, and it is a good medicine to let alone, until the indications for its use are more clearly defined and understood.

It requires from 2500 to 3000 calories a day for the average man, depending upon his activity. Some day the number or amount of vitamins will be tabulated. The V seems to be the X of the food value.

It has taken a long time to discover what particular principle contained in cod-liver oil was responsible for its beneficial effects in rickets and other nutritional disorders. It was found by McCollum and others that the addition of butter to a diet low in calcium caused greater deposit of calcium and better development. If the calcium in the diet were very low the addition of a larger per cent of butter did not give similar results but the addition of a small per cent of cod liver oil acted efficiently. Zilva (Lancet June 24) has shown that cod liver oil contains 200 times as much fat soluble vitamin as an average butter and it is concluded that this is the factor upon which depends the beneficial effects of cod liver oil in these cases.

There is much uncertainty about glandular therapy. There is much difference of opinion in the profession on the results obtained from glandular therapy. One might suggest that the same method be adopted to determine if glandular therapy has any real place in

medicine as was used to determine the medicinal value of alcohol—a vote of the profession. This majority-rule stuff is a great idea, especially in determining scientific facts. What?

Pyelitis caused by colon bacillus infection is described by Sir W. Hale White (Lancet June 24). It is not uncommon, occurs most frequently in women and young girls and usually affects the right kidney. Is quite frequently found in pregnant women. In these cases the urine will yield a pure culture of colon bacillus. There is usually pain, usually in the right, occasionally in the left, renal region simulating that of renal calculus. The finding of colon bacillus and pus in the urine is diagnostic. The route by which the infection has reached the kidney had not yet been determined.

The Academy of Medicine of Kansas City has voted to hold a Clinic week from the 3rd to the 6th of October, inclusive. This is the time also for the celebration of the "Priest of Pallas" but it is stated by the officers of the Society that the Clinic program will be largely in the afternoons and evenings and will not be disturbed by the "Priest of Pallas." There will be a smoker on October 3 and a banquet on October 4.

A free dispensary was opened, July 17, in connection with St. Francis Hospital at Wichita. Free medical service and free drugs will be supplied to the sick poor and a social worker will keep check on the patients to make sure that all are deserving. Dr. Leon Matassarini is the Medical Director.

#### A PROHIBITION EPITAPH

Here lies the body of Frederick Lefarge.

His death is too sad for description.

He was killed by the mob in a terrible charge,

When he carelessly dropped his prescription.  
—Bowdoin Bear Skin.

By legislation and court decisions the people are winning the fight against all so-called "milk compounds." The decision in Wisconsin Supreme Court, July 20, in the now celebrated "Hebe" case brought by the



Carnation Milk Products Company and the Hebe Company, upheld the state law forbidding the manufacture and sale of the compounds of skimmed milk and vegetable oil. The Carnation Milk Products Company, plaintiffs in the case, had sought to enjoin J. Q. Emery, dairy and food commissioner, from enforcing the law as against their product known as "Hebe."

Prof. Oskar Fischer of the German University in Prague has announced at a session of the Prague Medical Society the results of his experiments on the effects of his new preparation against general paralysis of the insane and tabes, which he calls Phlgethan. The preparation has been examined and treated by Prof. A. Wiechowsky for its pharmacological qualities before it was tried on actual cases of human cerebral syphilis. The preparation contains nucleinic acid, which has long been used for the treatment of this condition. (Lancet, May 13, 1922.)

Aubry and Trampol report 27 cases of general paralysis treated with intramuscular injections of novarsenobenzol, starting with 0.15 gram up to 1.05 gram at intervals of four days; and afterwards every eight days—the total amount given being 7 to 8 grams. The results were: 13 failures, 7 remissions with progressive symptoms later, and 7 marked remissions lasting for a considerable period—in one case nearly four years and in another two years. The improvement when it occurred was chiefly noticeable in the mental condition. No bad results were recorded. Even allowing for mistaken diagnosis and the spontaneous remissions which sometimes occur in general paralysis without treatment, the authors consider novarsenobenzol injections of much benefit in some cases. (Aubry and Trampol, *Rev. Med de l'Est*, March 1, 1922; *British Medical Journal*, May 13, 1922.)

Heller brings forward statistical evidence against the recent views: (1) That mercury is only a symptomatic remedy and does not influence the course of syphilis and at the best leads to a symptomatic cure, whilst sal-

varsan alone can produce a true cure; (2) that all cures of syphilis before the salvarsan period are instances of spontaneous recovery. The statistics of Gluck in Bosnia show the high percentage of tertiary syphilitic cases in some districts and their great reduction under the influence of mercury given in the early stages of syphilis.

Heller concludes that mercury is not only a symptomatic remedy, but that it favorably influences the course of syphilis. So long as it has not yet been proved that salvarsan or other remedies do the same or more (and this can only be proved by pathological anatomy in the next twenty years) the medical man is not justified in discontinuing the use of mercury. (Heller, *Klinische Wochenschrift*, March 11, 1922; *British Medical Journal*, May 13, 1922.)

Frei and Spitzer state that long before the discovery of the *Spirochaeta pallida* the co-existence of syphilis and tuberculosis had been observed in a number of cases. The grounds for such a diagnosis in the absence of histological examination were a focal reaction to tuberculin, the presence of tubercle bacilli, and a positive result from animal inoculation indicating tuberculosis, and the undoubted but incomplete success of specific treatment (mercury and potassium iodide) indicating syphilis.

The present writers report three cases in which the enlarged glands (cervical, epitrochlear, and inguinal) showed the *Spirochaeta pallida* as well as tuberculosis infection which was proved by inoculation of guinea pigs. A control inoculation of guinea pigs with the puncture fluid derived from the enlarged glands containing *Spirochaeta pallida* of eight syphilitic subjects was negative as regards tuberculosis. (Frei and Spitzer, *Klinische Wochenschrift*, January 1, 1922; *British Medical Journal*, May 13, 1922.)

## —R— THE FORUM

The Journal of the Kansas Medical Society.

Dear Doctor:

I read with pleasure the article on "Dead Head Practice" and comments, I have learned from ex-

perience that people think more of you when you tell them they must pay than when you let a bill run from year to year. I have several accounts that are long past due, but I know my people and I am positive in course of time I will get my money for services rendered. Being busy all the time is not what it is cracked up to be, I had better do less business and know when the year is out that I will be able to collect 85 per cent than be on the go all the time and get 50 per cent. I am always glad to work for people who are not able to pay for services, but I am the judge of who shall pay and who shall receive my work gratis. My people know I love to give them the best there is in me and they tell each other if you want Dr. W. he will do the best he can for you but he expects his pay. The practice of medicine at this age is different than it was when I started in 1886. I hope a good many have read the article and take a lesson from the same.

Fraternally,

Dr. JULIUS WESSELOWSKI.

Wellington, Kan., July 17, 1922.

Editor Journal of the Kansas Medical Society,  
Topeka, Kansas.

In reading the "Reflections by the Prodigal" in the current issue, his comments on "Idiosyncrasy" would have been far more illuminating, had he been able to explain to us the action of *Apis Mellifica*, instead of being simply satisfied with his lack of knowledge of what he calmly glosses over with the term of idiosyncrasy.

This is a world of mysteries, yet so long as we willfully close our eyes to scientific truths, facts that have been demonstrated clinically times without number, we shall continue to grope in Stygian darkness denying rational law and drug therapeutics, mainly because of our prejudices.

The law of *similia* makes for a scientific application of drugs and thus gives confidence to the prescriber, holding his patients, who are so rapidly leaving the school of empiric practice and crowding the waiting rooms of the cults and drugless healers.

Yes, the medical doctors are largely to blame for the narrowness and illiberality shown in being unwilling to consider any thing short of gross materials administered as agents therapeutically.

No one can at a glance or a mere cursory examination pass intelligently on any system of healing and be honest with himself or fair to that particular system to which he might give attention.

No one would accept a student in the grammar schools to pass any sort of examination in trigonometry or be able to write a thesis on cosmogony. So one must familiarize himself first with the elements before he can at all comprehend the law

of *similia* and apply it successfully in the use of drugs with their dual action.

There is no one law by which all problems are to be solved, neither is there one system of healing in the application of remedies in the relief of the sick.

The law of contraries naturally is the antipode of that law which recognizes the dual action of the majority of all drugs.

Every one of us who have been in active practice for any length of time has more than once observed that a purely typical text book case of disease is indeed a rarity. So then it would seem that the "idiosyncrasies" are in the majority, and to be rational, we should consider the patient rather than the name of the disease to be treated. No, not necessarily "symptom treating" as a jumping at conclusions might first lead you; but the consideration of the symptoms as manifest by the particular patient needing your care.

So the answer to the "why" in the last few lines of the article referred to in the Journal, would be found in making an investigation in the line of similars as verified every day by

Yours fraternally,

F. E. NETHERTON.

—R—

### Service for Physicians

The Division of Venereal Diseases of the United States Public Health Service has arranged with several prominent syphilographers and genito-urinary surgeons whereby the advice and counsel of these authorities is to be made available to general practitioners. The plan is referred to as "Consultation by Correspondence."

The method of utilizing this service is for private practitioners who have under their care any cases of venereal infection which they wish to describe to a specialist and ask for advice in regard to treatment or to the method of procedure in handling the case, to send to the State Board of Health a letter setting forth all of the data which they wish brought to the attention of the proper specialists. These letters will be forwarded to the Public Health Service who in turn will secure an answer to the communication from the best known specialist on the particular phase of the subject discussed in the communication from the private practitioner. It is believed that this sort of correspondence between private physicians and well known



specialists will be of material benefit in many cases. This service, is, of course, entirely free of charge.

All Kansas physicians wishing to avail themselves of this volunteer assistance will please address their communications to the Division of Venereal Diseases, State Board of Health, Topeka, Kansas, to be forwarded to the U. S. Public Health Service, Washington, D. C.

## R SOCIETIES

### CENTRAL KANSAS SOCIETY.

The second quarterly meeting of the Central Kansas Medical Society was held in the Sun Parlor of the new Ellsworth Hospital, Ellsworth, Thursday, June 15, 1922. The meeting was well attended by the members and quite a number from the neighboring medical societies were also present as it gave them all a chance to go thru the new Ellsworth Hospital that has recently been constructed by the Ellsworth physicians. It is certainly a credit to the community to have such a fine hospital. The best feature of the new institution is that it was built by the efforts of the doctors there together with the community that were willing to buy stock. There was not a penny donated to the building of same.

There being but little business to dispose of the program, which was one of the best that we have had for sometime, took up both the afternoon and evening session.

The following papers were read:

Indications for Surgery in Gastric Ulcers. Dr. E. S. Edgerton, Wichita.

Discussion opened by Dr. Alfred O'Donnell, Ellsworth.

Treatment of Fractures of Upper Third of Femur, Dr. E. D. Ebright, Wichita.

Discussion opened by Dr. Morgan, Clay Center.

After this paper the Ellsworth doctors invited all the doctors present to come out and go around their little nine hole golf course. This was certainly a treat for most of the men, but after the nine holes were played

there were only a few that were willing to turn in their score cards. Dr. Edgerton shot a 40, Dr. Knappenberger a 42, Dr. G. W. Robinson a 43, Dr. Turgeon a 43 and Dr. Jameson a 44, and the rest I cannot recall now.

At 7 p. m. the members and visitors were served a four course banquet at hospital by Miss Buchanan, Superintendent of Nurses and the nurses in training. Following the banquet the following papers were read:

Epidemic Encephalitis, Dr. G. Wilse Robinson, Kansas City, Mo.

Discussion opened by Dr. Karl Menninger, Topeka.

"Radiotherapy in Breast and Uterine Malignancy." Dr. G. E. Knappenberger, Kansas City, Mo.

Discussion opened by Dr. H. Z. Hissem, Ellsworth, Kan.

There being no further papers or business to come before the meeting on motion, the visiting doctors who had read papers before the society were giving a rising vote of thanks, for the trouble they had gone to, to make this such a wonderfully instructive meeting.

The next meeting will probably be held at Ellis, Kan., in September.

Following members were present: Drs. D. R. Stoner, H. S. Durrett, of Ellis; Drs. Jameson, Blake, Anders of Hays; Dr. Dreher Luray, M. J. Miller, Plainville; Drs. Cramm and Hawes of Russell; Drs. Carter and Turgeon of Wilson; Dr. Davis of Kanopolis; Drs. A. O'Donnell, Hissem, Mayer, Claire O'Donnell, Scott of Ellsworth.

The following visitors were present: Dr. G. Wilse Robinson, Kansas City, Mo.; Dr. G. E. Knappenberger, Kansas City, Mo.; Dr. E. S. Edgerton, Wichita; Dr. E. D. Ebright, Wichita; Dr. Ralph Hissem, Wichita; Dr. Karl Menninger, Topeka; Dr. Morgan, Clay Center; Dr. Moses, Salina; Dr. Nordstrum, Salina; Dr. Brittain, Salina; Dr. Neptune, Salina; Dr. Jury, Claflin, Kan.

LEO V. TURGEON,

### WILSON COUNTY SOCIETY.

The regular annual picnic meeting of the

Wilson County Medical Society was held in a beautiful natural grove one-half mile south east of Altoona the evening of June 20th. The members of the society were guests of the following Altoona physicians: Drs. Addington, Somers and Bobo. The following physicians and their families brought along good appetites, clear conscience, ability to laugh and well filled baskets and bottles (Thermos): Drs. Flack, Duncan, Wiley of Fredonia; Moorehead, Smith, and Sharp of Neodesha; Reece of Buffalo; Addington, Somers and Bobo of Altoona. Everyone enjoyed the evening to the fullest extent. The next meeting will be at Neodesha in September at which time the proposition of monthly meetings will be discussed.

E. C. DUNCAN, Secretary.

THE MEDICAL SOCIETY OF THE MISSOURI VALLEY  
AT ST. JOSEPH

The thirty-fifth annual meeting of this association will be held in St. Joseph, under the presidency of Dr. Paul E. Gardner, on September 21-22. The Buchanan County Medical Society is preparing for a series of clinics to be held at the various hospitals of St. Joseph on Tuesday and Wednesday, preceding the meeting, September 19-20. St. Joseph has a proverbial reputation for warm-hearted hospitality, and the arrangement committee, under the leadership of Dr. Floyd H. Spencer, announces that the "tang" of his city for entertainment and good fellowship will be fully sustained upon this occasion. The famous hotel Robidoux will be headquarters, and all sessions will be held in the beautiful Crystal Room. The exhibits will be on the same floor.

One of the features of the second day will be a symposium on the "Early Recognition of Cancer" participated in by a number of men who have won national distinction in research work and clinical investigation. On Thursday evening at 7:30 o'clock, Dr. C. W. Hopkins, chief surgeon of the C. & N. W. railway, will give an illustrated lecture on "Injuries and Surgery of the Spine," and Dr. N. M. Keith, of the Mayo Clinic, will present

a paper on "Hypertension in Cardio-Vascular Disease," illustrated by lantern slides. Following the evening session will be a smoker and other entertainments. Members are urged to bring their ladies who will be entertained while the fellows are attending the sessions.

Reservations of rooms at the Robidoux should be made early to avoid disappointment. The medical profession of adjoining states cordially invited to attend the clinics whether or not they are members of the society.

The preliminary program follows:

"Causes of Duodenal Ulcer." Dr. E. P. Sloan, president Illinois State Medical Society, Bloomington, Ill.

"Toxic Factors in Intestinal Obstruction." Dr. T. G. Orr, Kansas City.

"Convulsions in Children," Dr. S. Grover Burnett, Kansas City Mo.

"The Phosphatic Index," Dr. J. Henry Dowd, Buffalo, New York.

"Some Phases of the Relation of Dental Focal Infection and Systemic Diseases." (lantern slides), Dr. Russell L. Haden, Kansas City, Mo.

"Renal Function in Prostatic Hypertrophy," Dr. Raymond L. Latchem, Sioux City, Iowa.

Dr. Leigh F. Watson, Chicago, subject to be announced.

"Myoclonic Type of Epidemic Encephalitis," Dr. Lloyd James Thompson, St. Joseph.

Dr. Lynne B. Greene, Kansas City, subject to be announced.

"Cancer: Its Early Recognition," a symposium.

(a) Address, Dr. Fred J. Taussig, St. Louis, Mo., "How far Can the Cancer Death Rate Be Decreased by Educating the Profession and the Laity."

(b) "Superficial Cancers," Dr. E. H. Skinner, Kansas City, Mo.

(c) "Gastro-Intestinal Cancers," Dr. John M. Bell, St. Joseph, Mo.

(d) "Cancer of the Breast," Dr. Donald Macrea, Council Bluffs, Iowa.

(e) "Cancer of the Uterus," Dr. Palmer Findley, Omaha, Neb.



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### Deaths

Dr. Arthur B. Reeves, Oberlin, died July 7th, 1922, from a perforated appendix. He was born in 1883, graduated from the Ensworth Medical College, St. Joseph, Mo., in 1910, was licensed to practice medicine in 1914, and has been in Oberlin several years. He is a member of the Decatur-Norton County and Kansas State Medical Societies. He leaves a wife and four small children.

Dr. J. N. Scott, Peabody, died July 25, from the ultimate effects of x-ray burns. He was born in 1871, graduated from University Medical College, Kansas City, Mo., in 1897. Dr. Scott was one of the earliest roentgenologists in the west, practicing in Kansas City until his retirement a few years ago on account of x-ray burns and the necessary amputation of an arm.

Dr. Mark A. Brawley, Frankfort, died, June 16, aged 72. He was graduated from Cincinnati College of Medicine and Surgery, Cincinnati, in 1873. He was formerly city health officer and was a veteran of the Civil War.

Dr. Thomas C. Craig, Easton, died June 29, aged 78. He was graduated from the Medical College of Virginia, Richmond, Va., in 1867. He was a Confederate veteran.

Dr. Wm. S. McDonald, Fort Scott, died July 23rd. Dr. McDonald was born in Maine in 1853, graduated from Jefferson Medical College in 1888. He has practiced medicine in Fort Scott for nearly thirty-five years. He was a member of the Bourbon County Society.

### Apparatus for Withdrawing Spinal Fluid Without Postpuncture Reaction

Randall Hoyt, New York (*Journal A. M. A.*, Feb. 11, 1922), uses a needle within a needle. The outer needle is the ordinary type of lumbar puncture needle, within which the inner needle accurately fits, and beyond which it extends as a fine point, for about a quarter of an inch (6 mm.). The proximal end of the outer needle is arranged as a fitting for a Luer syringe, whereas the proximal end of the inner needle is arranged for a record syringe. To use this apparatus, lumbar puncture is made in the usual way, up to the point of piercing the dura. At this point, the obturator of the needle is removed, the inner needle—with a 10 c. c. record syringe attached—is introduced into its place, and thrust forward to its full extent, so as to pierce the dura, which it is enabled to do on account of

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# THE JOURNAL

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### Treatment of Pulmonary Tuberculosis

WM. S. HUNTER, M.D.

Assistant Physician, State Sanatorium for Tuberculosis

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

Pulmonary tuberculosis is ubiquitous in civilized communities; opportunities for infection are legion; few, if any, escape infection before adult years.<sup>1</sup> Such infection does not necessarily develop into disease. After infection, intercurrent disease, especially respiratory, may cause or permit the latent condition to develop into disease. So also may anything that lowers vital resistance, such as mental or physical strain, long continued.<sup>2</sup>

#### **PATHOLOGY**

Tubercle bacilli lodge in the lung—and it is immaterial whether this is through inspiration of the organisms or reception through lymph or blood currents from tonsils, intestine or other primary portals. The bacilli multiply. Some die from various causes, liberating endotoxins. These endotoxins cause caseous change in adjacent tissues. The necrotic tissues give off protein poisons. The invaded tissues respond by exudation, phagocytosis, proliferation of connective tissue, calcification, and by elaboration of some form of antibodies. Variations in the virulence of the organisms and the various defensive reactions determine the types: fibroid, fibro-caseous, caseofibrous; and the other subtypes.

#### **SUNPTOMATOLOGY**

Part of the symptoms are directly due to the disease process, such as cough, pleuritic pains and effusions, sputum, hemoptysis, bacilli in sputum. Part of them are reflex, due to irritation of nerve endings by the inflammatory process, and transfer of stimuli to communicating neuromuscular systems in the same manner as appendicitis causes reflex spasm of the rectus abdominis. To the reflex group belong the spasm or increased tone of

the trapezius and scapuli and other muscles of the shoulder girdle, the trophic change in them and the skin and subcutaneous tissues, the hacking cough due to irritation of the recurrent laryngeal, back, neck, shoulder and intercostal pains and hypertonus of the stomach, with digestive disturbance. The third group of symptoms is the result of toxemia, such as loss of weight, anorexia, and atony of digestive viscera, fever, sweating, nervousness, irritability, lowered endurance.<sup>3</sup> This is the most important group as it results in the greatest damage and the majority of fatalities.

#### **COURSE**

In guinea pigs and infants the course is acute, tending rapidly to fatal issue. In older people the course is essentially chronic with more or less short periods of activity and more or less long periods of quiescence. Accidents may occur in the course of a relatively chronic case showing low virulency, such as rapid infiltration of a considerable portion of a lung or lobe; more or less rapid softening and excavation with enormous toxemia; pneumonic or broncho-pneumonic phthisis; or there may be a rupture of tubercle in the wall of a blood vessel and dispersion of the bacilli to other viscera and the meninges giving rise to miliary tuberculosis with or without meningeal symptoms.

Ordinarily the course can be considered to be chronic, with several periods of exacerbation separated by periods of quiescence and relative good health, the duration being not less than several years. It is this type only that need be considered from the standpoint of hopeful therapeutics although the several types of galloping tuberculosis are known at times to suffer modifications into the chronic form. Even miliary is now considered to be capable of arrest in a small percentage of cases. Therefore, whatever may be said of

the treatment of the chronic form, may and should be applied to any case in the hope that the desperate picture may be changed and the patient given an opportunity to combat a chronic tuberculosis with some fighting chance. This was the case with me; suddenly bowled over with an acute tuberculosis resembling typhoid. The prognosis could be nothing but the gravest, but thanks to the unwavering courage of my friends, and to the physicians, one of them our honored ex-treasurer, who gave so generously of their skill and time, the case was treated according to the principles I am privileged to give you this day and a more or less complete recovery ensued. I wish to repeat that metamorphosis of desperately acute phthisical syndromes into arrestable chronic ones does occur, and most workers with the tuberculous have witnessed such transformation.

#### PROGNOSIS

The prognosis is always guarded even in the most incipient; always hopeful except only after rigormortis.<sup>2</sup> In figures; 80 to 90 per cent of incipient; 40 to 60 per cent of moderately advanced and not to exceed 5 to 8 per cent of advanced cases can become arrested. In view of the results in the three stages early diagnosis must continue to be one of the most essential elements of treatment.

#### TREATMENT

It has been helpful to me in this connection to bear in mind the three-fold division of symptoms: direct, reflex, and toxemic.<sup>3</sup> I also try to visualize the pathology. It is advisable to impress the patient and his family with some idea of the character of the disease under treatment; its tendency to ameliorate and exacerbate; its essential chronicity and relapsivity; the type of lesion in the lung which it is necessary to heal; the sources of the numerous symptoms; the tendency to improvement all along the line as toxemia lessens and the lesion heals.

Trusting you will bear with some repetition, I will again venture to refer to the lesion in the lung. It is substantially a group of bacilli, some actively multiplying, some dead.

These latter liberate endotoxins. Surrounding the bacilli are migratory and fixed cells walling in the organisms. There is a more or less extensive necrotic and caseating mass of adjacent lung tissue. From this pul-taceous mass the lymph current absorbs and transmits to the circulation varying amounts of toxic material derived from disintegrating organisms and the proteins of the necrotic cells and tissues. As a result of the destructive action ulceration into bronchi may and does occur frequently. Likewise continuity of vascular channels may be interrupted causing hemorrhage. All the three orders of symptoms are explainable. Directly from ulceration are such symptoms as cough, sputum, bacilli in expectorated material, and hemoptysis. Reflexly, through irritation of the vagus terminals by inflammatory action result the laryngeal cough, increased tone in the muscles of the upper girdle, atrophic changes, heart and digestive disturbances. Through lymphatic absorptions of the toxins from the necrotic caseating mass assisted by the rhythmic movements of the lung itself occur the clinical symptoms of toxemia such as vasomotor disturbances, rapid pulse, anorexia, sweating, wasting of tissues, easy fatigability, nervousness, irritability.<sup>3</sup>

Permit me to consider treatment for the moment from an *a priori* standpoint of reasoning. One desires to heal an inflamed, perhaps ulcerating, lesion in an organ subject to constant rhythmic expansion. Obviously, reducing the amount of movement and consequent frequent tearing apart of the cicatrizing tissues is logical one might almost say indispensable. This is desirable for mechanical reasons if none other. But when we consider that the diseased mass is capable of intoxicating the entire system by reason of lymphatic absorption, and that this must be accelerated by the alternate compression of the mass and suction from the mass by movements of the lung, and that increasing the excursion of the lungs will increase such absorptive action, then it is evident that rest of the lung is indeed a principal need in treatment. Rest of the lung is, it seems, indispensable and, it



would appear, is deducible by *a priori* reasoning.

Is there also an *a posteriori* that will support this? This question can certainly be answered in the affirmative. Spontaneous effusion in the pleural cavity and spontaneous pneumothorax have been observed, *if on the affected side*, to cause a fairly prompt drop in temperature, and relief of toxemic symptoms. Induced pneumothorax has a long line of successes to its credit. These results are only explainable through the more or less complete immobilizing or rest of the diseased lung that follows the effusion of fluid or introduction of air; in other words, relatively complete rest of the lung.

It is, however, considering the numerous cases of tuberculosis that need treatment, desirable to accomplish rest of the lung with the salutary sequelae thereof, in some simpler and more universally applicable manner than by pneumothorax. This can be accomplished by putting the patient at as complete rest as possible, which reduces the excursion of the lung very greatly.

It is possible, in most cases, to see immediate improvement in toxemic symptoms after a few days of *complete bed rest*; the fever abates, the pulse slows, nervousness ceases, appetite returns, weight increases, and the patient has started on the upgrade. One should not be impatient for quick results as it may take months or sometimes over one year of fairly complete bed rest to cause all symptoms to improve. During the course of the rest cure there may be blow-ups or aggravation of symptoms. Only 52 per cent of patients at the sanatorium stated their physicians had recommended rest or sanatorium treatment.<sup>4</sup>

As a corollary, from the percentages of cures or arrestments possible in incipient cases and others, probably the most important element in the cure must continue to be early diagnosis. Fifty-four per cent of patients stated the *first* doctor consulted did not diagnose tuberculosis.<sup>4</sup> Fifty per cent of our patients suspected tuberculosis before diagnosis and 41 per cent *suggested* the diagnosis to their

doctor.<sup>4</sup> Observation at the State Sanatorium of patients in all stages, and comparisons of their x-ray pictures with physical findings and clinical symptoms force the conviction that a diagnosis of clinical incipient tuberculosis from x-ray findings alone cannot be made. Such diagnosis depends almost entirely on history and clinical symptoms. David A. Stewart says: "If a choice had to be made of one element alone in the diagnosis, the choice would be, not physical examination, nor x-ray plates, nor laboratory tests, but history. Perhaps the pen is mightier than the stethoscope."<sup>5</sup> Physical examination can and does recognize tuberculous changes but frequently it is unable to determine clinical activity and consequent need for treatment. In other words, a person may exhibit physical signs of tuberculosis and clinical symptoms which will cause him to take the treatment with arrest of the disease. At the end of the treatment the physical signs such as rales may still be found but all clinical symptoms may have disappeared.<sup>6</sup>

How long does it take to effect a cure? Experience has taught that five years must elapse with freedom from symptoms before it is safe to speak of cure. The ex-tuberk should be regarded as substandard, especially as to physical effort. Laborious effort should be regarded as directly dangerous.

The treatment is complete rest during the toxemic stage, and for some time thereafter. This should be in the open air because of the stimulus to constructive metabolism that open air causes. The cough improves and narcotics are not needed. The appetite improves. Naturally, a nourishing, well-balanced dietary is required. Fresh milk, eggs, butter, vegetables and fruits are needed because of their vitamin content.

Concomitant symptoms such as constipation, indigestion, pleuritic pains and the like call for suitable remedies. Constipation can be relieved by diet, increase of liquids, petrolatum, and the like. Indigestion can be relieved by strychnine or the like to reduce gastric atony. Effusions and tuberculous empyemas should as a rule not be surgically treated.

No incipient case can be regarded as arrested in less than six months treatment. More advanced cases will require not less than six months and perhaps more than one or two years.

After arrest of symptoms the patient should very gradually resume some activities, always being watchful for signs of reactivation of the phthisis. The germs do not die out for a very long time, even though the lesion is thoroughly cicatrized or calcified.

The cure can occur in any climate.<sup>2</sup> Serums, tuberculin, proteogens, and the like have not in general proved their worth, if used without the rest cure, but many disasters have occurred through depending on such means, and neglect of the all important rest.

Temporary improvement often takes place as a result of change of doctor, climate, medicine or whatnot, and should deceive no one. The patient should get the habit of uncomplainingly resting month after month—if he would recover health; the habit of letting the world go by and not attempting to keep up with his friends in their work and amusements—if he would stay well.

#### INDUSTRIAL CONVALESCENCE

A second principle in the treatment is aimed at a return to industrial convalescence as far as possible compatible with retention of health. After the rest cure has done its work in cicatrizing and calcifying tuberculous areas, with concomitant relief of toxic symptoms, a decision must be made as to what percentage of physical and other effort can be safely returned to and in what period of time. The government in its rehabilitation of tuberculous soldiers is using the Frimley statistics as a warning. Briefly these are that at the end of five year 95 per cent of men who were turned out of that institution doing six to eight hours work daily, such as shoveling dirt into baskets and carrying it to a distance, were dead or hopelessly ill with advanced tuberculosis. These men were of the laboring class and returned to work as stevedores and longshoremen and the like promptly after discharge from sanatorium treatment.<sup>7</sup>

These figures are horrifying and one might well ask what is the use of expensive prolonged treatment if the end results are to be no better. The end results cannot be improved greatly if the ex-tuberculous is to return to *Hard Manual* labor. He must be led to take up easier modes of life. He must only by degrees return to the measure of effort allotted to him after careful evaluation of all factors, subject to revision downward as the need may arise. Probably a gradual return over a period of not less than two years to about five or six hours light work daily is relatively safe in cases that have suffered no great damage, if health is to be maintained. Physical recreation should not be considered till a later period and social strain should be avoided. "A chief cause of health breakdown is the over-spending of energy, more usual in unnecessary than in necessary effort, more usual after six o'clock than before it. Many so-called recreations do not recreate."<sup>5</sup>

Is treatment of the tuberculous worth while? Records show many expatients of the State Sanatorium earning a living for themselves and families. Laennec, who is called the father of auscultation, was a chronic phthisic. Two famous novelists now living have done most of their work since diagnosed tuberculous. The list of brain workers who had chronic tuberculosis is very long indeed. Darwin, Bobby Burns, John Wesley, are on this list.

The rest cure can be pursued anywhere in any climate where outdoor resting is feasible but owing to various factors can be followed out more thoroughly in a sanatorium than elsewhere. A few of the reasons for this are: the patient sees many doing the same thing; everyone, patient and employee alike, urges him to rest; friends are not dropping in and coaxing him to take an auto ride and the like; he quickly learns the many pitfalls in the path; he does not see many things that he wants to do; and his appearance of health does not cause his relatives to urge him to undertake business affairs or other exertion. For these and other reasons it is not surprising that the results claimed for sanatorium treat-



ment are twice as good as those obtained by other treatment.

#### SUMMARY AND CONCLUSIONS

1. Symptoms in tuberculosis can be divided into direct, reflex and toxic.
2. The toxic symptoms are most important and are caused by absorption from the disease focus. Absorption is increased by increased excursion of the lung.
3. The bed rest cure can be reduced *a priori* from a knowledge of the rhythmic expansion of lung tissue.
4. The rest cure can be demonstrated *a posteriori* from the observation that after pleural effusion or pneumothorax, natural or induced, the toxic symptoms frequently subside promptly.
5. Effusion and tuberculous empyemas should not, in general, be surgically treated.
6. Complete rest in bed especially on the affected side affords very great rest to lung tissue with usually marked and prompt relief of toxic symptoms.
7. Sanatorium treatment affords for various reasons twice the chance for improvement that other treatment does.
- \*8. Radiologic diagnosis is on the same basis as bacilli-in-sputum diagnosis, and cannot be on the whole as early as diagnosis by clinical observation.
9. For treatment to offer reasonable hope of arrest, the cases must be diagnosed early. Eighty per cent of incipient cases can be arrested; only 50 per cent of moderately advanced; i. e., the results are not so good as in typhoid.
10. Education of patients and families as to the chronic relapsing tendency of tuberculosis is advisable.
11. The ex-patient is substandard and cannot stand hard physical labor.
12. The arrested case of tuberculosis should be instructed to return gradually to about five or six hours work over a period of two years. The work should not entail much physical effort. Physical recreation and social strain should be avoided.

1. Bushnell—Epidemiology of Tuberculosis.
2. Kenney, C. S.—Early Diagnosis of Tuberculosis, Kansas State Medical Journal.
3. Pottenger—Clinical Tuberculosis, C. V. Mosby & Co.
4. Result of Questionnaire submitted during Feb., 1922, to all patients in San.
5. Stewart, David A.—The Diagnosis of Pulmonary Tuberculosis. (Am. Review of Tuberculosis, Vol. 5, No. 12.)
6. Trudeau, Francis—Transactions of Am. Assoc. for Study & Prevention of T. B.
7. Bulletin No. 59.—A Tuberculosis Background for Advisers and Teachers, Federal Board for Vocational Education.

Free use of much other material was made from various sources, but it is impossible to refer to all of them.

—R—

#### Diagnostic Surveys by Diagnostic Commissions for Asylum Populations

CHARLES A. L. REED, Cincinnati, Ohio

The relation of focal infections to the cause, pathology and rational treatment of so-called epileptics and the equally so-called insane, is of increasing interest it not imperative importance. Thus, during the last eleven years, I have found focal infection present in all of more than one thousand consecutive cases of "epilepsy", otherwise more properly called chronic convulsive toxemia. Thus, again, during the last four years, at the New Jersey State Hospital, Dr. Henry A. Cotton has found focal infections constantly present in certain forms of "insanity", otherwise more properly called chronic psychotic toxemia. A distinguished neurologist, Dr. Herman H. Hoppe, has just reported to me of a case in which he had clinically demonstrated that a focus of infection in the frontal sinus had been the cause of a confusional insanity. In the practice of the same distinguished neurologist, some six or eight years ago, infection of the colon was similarly demonstrated to have been the cause of a simple melancholia that had kept a useful lawyer incarcerated in a sanatorium for three years and that cleared up in three weeks after the underlying condition had been surgically corrected by an operation at my own hands. An eminent internist, Professor Martin H. Fischer, but recently had a case of acute maniacal disturbance to clear up following the removal of painless apical abscess involving but a single tooth. Multi-

tudes of similar instances could be recounted from these and other equally reliable sources. Those here given are cited only to illustrate the rapidly broadening experience of the general profession in all parts of the country. In other words as indicated not only by these instances but by a rapidly growing literature, the etiologic role of focal infections is being very generally recognized and acted upon—everywhere except among the classes in which they are productive of the most tragic results. I allude to the epileptics and insane now incarcerated in the asylums of the country—the word asylum being used to designate a purely custodial institution as distinguished from a hospital which is a curative institution. I desire also to make clear that very generally, the responsibility for this condition in the asylums is due to the “system” and not to the indifference or incapacity of their medical officers.

#### FUNDAMENTAL FACTS AND THEIR SIGNIFICANCE

The experiences of Dr. Cotton among the “insane” and of myself among “epileptics” are parallel in several important particulars. Thus, (1) all cases—all!—as determined by physical and x-ray examinations, have splanchnoptosis; (2) all cases—all!—that have been subjected to surgical exploration, have had focal infection of the intestinal tract associated with visceral displacements and bacterial involvement of the mesenteric and mesocolic lymphatics; (3) other foci occur in order of frequency, in the teeth, tonsils and accessory sinuses; (4) still other foci occur occasionally in the genito urinary organs of both sexes and in other organs and structures. The constant occurrence of intestinal infections in these cases is explained by the fact that they may occur independently of any other focalized infection; that they always exist in presence of foci in the teeth, tonsils and sinuses; and that they often persist after all other foci in teeth, tonsils, sinuses and elsewhere, are eliminated. The observations of Dr. Cotton and myself further agree in the particular that, as shown by histories given, these foci, or some of them, wherever located, are antecedent to the convulsive,

psychotic or other toxic phenomena. The relationship of cause and effect is therefore logically inferred. The demands of the law of cause and effect are, however, further satisfied by the fact that, in many of these cases, the removal of the cause has resulted in the subsidence of the effect or, in other words, in the cure of the patients. These observed and amply substantiated facts relate to the welfare of hundreds of thousands of “epileptics” and “insane” in asylums; to the welfare of as many more who ought to have active treatment; to the happiness of their millions of relatives and friends; to the many millions of dollars loss, economic and direct, incurred by the state. The possible significance of the great underlying truth is, therefore, so profound that the problem, viewed from this angle alone, ought to be neither ignored or deferred by either the profession or the public.

#### INDEPENDENT DIAGNOSTIC SURVEYS

The etiologic and pathologic findings just recorded, while amply confirmed by incidental cases at the hands of various practitioners, by at least one large institution and, in a more or less desultory way, by various other institutions, yet rest essentially upon my own experience of eleven years confirmed by that of Dr. Cotton covering the last four years. To both Dr. Cotton and myself our experiences, severally or jointly considered, are conclusive. There are many members of the profession who maintain our views. There are, however, others, especially those who were taught the older doctrines, who are honestly incredulous. There are still others who, without considering the facts for a moment, turn from them and their deep significance with resentment if not actual hostility. I consider it unfortunate that some of this latter class are in charge of institutions that control the welfare and destinies of many thousand patients of the type under consideration. But in view of the fact that they do occupy such positions and in view of the great human interests at stake, I urge that it is of the highest importance that the fundamental scientific facts of causation and pathology should at once be put to the most crucial test. This is



the basis for such a test: If I have found focal infections with associated definite pathology in one thousand consecutive cases of "epilepsy" and if Dr. Cotton has found similar conditions in a similar or larger consecutive number of certain types of "insanity", logically the same findings must be possible in any other thousand consecutive cases of "epilepsy" or in any other thousand or more consecutive cases of similar types of "insanity." This fact points not only to the practicability but to the importance of independent, thorough and comprehensive diagnostic surveys of asylum populations. Such surveys along the lines of focal infections, even if confined to a few institutions would tend either still further to confirm or to disprove the findings and conclusions of Dr. Cotton and myself. But, while asking for the most rigid determination of facts, this suggestion is not offered in a spirit of banter or controversy but solely in one of constructive co-operation with progressive medical officers of these institutions. The sole objective should be to determine the incidence of focal infections among "epileptics" and the "insane." How many have infected and poisonproducing teeth or jaws? How many have similarly diseased tonsils? How many have suppurating sinuses? How many have displaced and consequently infected intestines? How many have foci of infection in other organs or structures? How many have actually infected blood streams? To what extent have there developed secondary foci in other organs and structures?

#### DIAGNOSTIC COMMISSIONS

Diagnoses in asylums now are made by the staffs of the respective institutions. They may be classified as neurologic or psychiatric or neuro-psychiatric, or psychoanalytic. Only rarely if at all do they embrace a careful appraisalment of active physical conditions but are confined chiefly to enumeration and appraisalment of phenomena connected with what are called the mind and nervous system. What is here insisted upon is that, in every case, there shall be a highly specialized diagnosis of every possible physical and clinical feature, all determinations to be made by the

most modern scientific methods. Among modern scientific methods of diagnosis none has been more definitely evolved than the group study of cases. The newer knowledge with respect to focal infections, with its revolutionizing influence on all medical science, more than any other one thing, has forced the development of group practice. In no branch of scientific practice, diagnostic or therapeutic, is group cooperation so imperatively demanded and so thoroughly impossible as in the existing generally prevalent system of asylum treatment of "epileptics" and the "insane." The whole situation would seem, therefore, to call for the appointment of a group made up of certain specialists to act for the present as a commission to conduct a diagnostic survey of an institution or institutions under the control of the state. It ought first to be provided with ample physical facilities—a general analytic laboratory, a bacteriological laboratory, an x-ray laboratory. The personnel of such a commission ought efficiently to cover the departments of analytic chemistry, including haematology, bacteriology, rentgenology, dentistry, laryngology, ophthalmology, with an abdominal surgeon and an internist to conduct the general physical examinations and to interpret and correlate the finding of the technical specialties. Of course, as neurologists comprise the staff of the institution, a neurologist would not be on the commission, the very object of which would be constructively to check up the neurological diagnosis already made. Then, too, as all medical officers of these institutions must either favor or oppose the whole diagnostic movement they deserve to be spared from the equivocal position of determining facts that relate to their preconceptions, practices or possible personal interests. The functions of such a commission would be purely diagnostic and its tenure would end with the completion of the diagnostic survey.

#### CLINICAL VALUES AND DIAGNOSTIC

##### INTERPRETATIONS

One motive for the appointment of independent diagnostic commissions is to secure for the patients not only of the highest technical

skill available but examinations by methods calculated to reveal rather than to conceal the truth as to their exact condition. Thus, for instance, I have had cases referred to me with the statement that there was nothing the matter with the tonsils when a little pressure with a laryngeal mirror would squeeze pus from one or more crypts; others have come with the assurance that the x-rays revealed normal teeth when a properly secured film showed apical abscesses at from one to a dozen different teeth; others in which the abdominal viscera, x-rayed with the patient always prone, was reported normal when one picture taken with the patient erect at the time the barium was ingested; another, taken six hours later, with the patient prone; and another taken after twenty-four hours with the patient erect, demonstrated extreme gastro-coloptosis with fecal stasis due to ileal bands and to retardative angulations. These conditions always imply to the observer familiar with living pathology of the abdominal viscera, certain other definite invariable conditions, namely, infection of the intestinal follicles, infection with enlargement of the lymphatics and venous stasis of the mesenteric circulation. These instances are cited to show the importance of first, an adequate diagnostic equipment; second a correct diagnostic technique in determining the underlying physical facts; third, a proper appraisalment of their clinical values when, fourth, they are interpreted by persons practically familiar with the living conditions to which they relate. The appointment of diagnostic commissions would, furthermore, insure the actual use of adequate equipments which, it is known, have been generously furnished to more than one institution but in which no general diagnostic surveys such as here outlined, have ever been so much as attempted.

#### THE ECONOMIC PHASE

It seems almost a disgrace that where humanity, where life and health or what is more precious than either, sanity, are concerned it should be necessary to quibble about the chips and whetstones of cost and profit. In the last analysis, however, money becomes

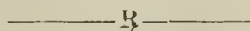
the measure of values and it is therefore necessary to take it into account in connection with the proposal for diagnostic commissions. Of course the members of each commission must be paid and to secure the proper service, they ought to be reasonably well paid. But the medical profession has always been ready to make sacrifices for the public good and would probably do so in the present instance. This being true probably from \$10,000 to \$12,000 would secure the services of a corps of experts for a period of from six weeks to two months to make a diagnostic survey of an institution of approximately fifteen hundred inmates. Laboratory and x-ray equipments will cost about \$25,000 or a little over \$6.00 per capita. On this basis, at the New Jersey State Hospital, an institution of 800 admissions annually, the resulting savings on maintenance of patients alone has been estimated at \$90,000 per year. A conservative estimate, based upon the findings of the National Committee for Mental Hygiene as to the number of insane in asylums, indicates that in such institutions and in alm-houses and reformatories, there are more than 335,000—a third of a million—insane in the United States who are receiving public aid. Add to this 14,937 epileptics and 40,519 "defectives" in institutions a year ago, and add to all the increase in each class for the year and it will be seen that the public is today supporting in excess of 400,000 persons in what, with but a few honorable exceptions, are purely custodial institutions. These figures, on the basis of savings at the New Jersey institution, show possible savings for the entire country of \$18,000,000. And this is on maintenance alone, no account being taken of the economic value of productive energy restored to the community by recoveries. Of course while considering economies it would be sentimental if not silly to allude to the restored happiness of thousands of now bastiles inmates and to the joy of their millions of relatives and friends.

#### AN APPEAL

This article is written as an appeal to the general medical profession for co-operation in securing the diagnostic survey of asylum



populations. There is probably no one subject that appeals in a practical and humanitarian way to so large a number of general practitioners as does the care of epileptics, the insane and associated classes. The figures already given show that on the average there are about three of these cases to every general practitioner in the United States. They occur about equally in every section, in every neighborhood. The institutions are crowded and their medical officers, many of them of the most progressive type, are appealing for such change in the "system" that they can do something actually curative for their cases. In the circumstances each member of the medical profession is asked to use his or her influence with asylum directors, state charity commission, legislature, and governors, to secure the equipment and personnel necessary to give these unfortunate classes the benefit of the latest and best development of science in determining the fundamental facts of their illness.



### Reflections by the Prodigal

#### NOSTRUMS

A book on "Nostrums and Quackery, reprinted from the Journal of the American Medical Association should be in the library (and frequently consulted) of every reputable physician. It is a part of the physician's education to not only know that there are such "Nostrums" and know how extensively they are used and how it affects the health of the people and how it interferes with his success in the treatment of disease and the contents of his pocketbook; but he should know the composition of these empoisonments so that he may know their effects on inertia and be able when asked by his patients or the public to tell them the composition of the "stuff", the danger or worthlessness of the advertised nostrum and the financial loss they sustain, that the public may be educated to the danger and financial loss of supporting charlatans, and incidentally that the public may also be able to figure out the wrong they are doing to the family physician, upon whom

they depend and call on, in critical cases and in time of distress to help them out.

#### HOSPITALS VERSUS HOSPITALS

There are 8,236 hospitals in the United States, approximately. They can accommodate about one half million patients. There is need for more hospitals.

The civilization of a people is measured by the care taken of the defectives, dependents, disabled and sick. At the risk of being called a "yesbutter", will say, "there is overhospitalization although a dearth of hospitals. (A yesbutter is a person who always agrees with you with a Yes! But—). By overhospitalization is meant that too many patients are sent to the hospital who would be better treated at home. There are three elements elbowing their unpleasant presence into hospital practice, viz., high finance, laziness and specialism.

When as much money can be made or more by sending a patient to a hospital as can be made by treating the patient at home, there is a strong temptation to get the money and let the other fellow do the work at-the-expense-of-the-patient.

Laziness is encouraged by relief from responsibility and the ease in following the line of least resistance to get the filthy lucre. Specialists diagnose the cases and study is eliminated from the curriculum of the sender. These elements in hospital practice influence the sons of Aesculapius and have a tendency to lower their morale unless scrupulously guarded against.

#### UNREST

The world is a seething mass of unrest, at the present time, and no prospect of a let up in sight. This augurs well for the future, providing the energy developed is made. The unrest is no respecter of persons or professions. It is up to each individual and to each profession to maintain itself and to continue its growth.

A great deal of the energy of some of the units of the medical profession is misspent or directed wrong and is increasing the difficulty in keeping up the growth and good name of the profession. This is evidenced

by the growth of cults in medicine. The people are not satisfied or rare dissatisfied with regular medicine as it is practiced. The defection is too great for a trivial cause.

There is a cause for every effect. The cause goes before the effect (except when a man wheels a barrow). The cause of the defection of such a large per cent of the patronage of regular medicine by the laity maybe is in not getting value received for their money; excessive charges; poor service; lack of success; deception and hence loss of confidence in the family physician. One of these or several of them combined.

Do as we would want to be done by. There is no place or condition in which this principle will not work. And the more it is worked with and at the easier it becomes.

—————R—————

## BELL MEMORIAL HOSPITAL CLINICS

### Clinic of H. R. Wahl, M.D.

#### PULMONARY DYSPNOEA

#### Two Cases, One Due to Emphysema and the Other to Secondary Carcinoma

The first patient was a colored woman who entered the hospital complaining of shortness of breath, especially following exertion. The patient was 36 years old. Ten months before she said that she had smothering sensations at night, but was able to do her work in the day time until one month ago when she began to menstruate very freely associated with severe pains in the right side. Her shortness of breath became more severe so that she was confined to bed for the past two weeks. She also had a severe cough which increased her sensation of suffocation. She urinated three times a night. Had frequent night sweats. There was no swelling of the ankles. Had lost 18 pounds of weight in the last month. Appetite poor.

The physical examination showed a very obese colored woman who seemed to have great difficulty breathing. This dyspnoea did not seem to be relieved by change of posture and seemed persistent and just as bad while at rest as after slight exertion. There were also paroxysms of coughing. There was

marked cyanosis. Examination of the lungs and chest was negative. The abdomen was distended and tender especially below the right costal margin. The liver was enlarged extending 5 cm. below the costal margin. The pulse was 88 to 100, the respirations were 28 to 44. There was no elevation of temperature. There was a suggestion of fluid in the abdomen. The vaginal examination showed a bloody discharge. There was a large tender mass in the pelvis to which the uterus was attached. Albumin and casts were found in the urine. The blood pressure was low (70 to 100). There was a slight retention of phenolsuphonephthalein. Gastric analysis was negative. The blood picture was that of a slight secondary anemia. The patient was in the hospital six days and died unexpectedly after some apparent improvement in symptoms.

The clinical diagnosis was not definitely made. A diagnosis of a large ovarian cyst was made. Also a carcinoma of the uterus with peritoneal metastases. The shortness of breath was thought to be due to cardiac failure with acute dilatation as the immediate cause of death. The kidney condition was considered a part of the venous stasis.

At autopsy there was no edema. There was a large amount of slightly turbid fluid in the peritoneal cavity. There was no excess of fluid in either the pericardial or pleural cavities.

These are the important organs removed at the autopsy. You will note that the heart does not appear very abnormal. It weighs only 340 grams. It is however unusually flabby and its right side is distinctly dilated. The valves are all normal. There is no sclerosis of the vessels. The liver is much enlarged weighing 2100 grams. Its outer surface is roughened and granular and shows gray nodules on the surface suggesting tubercles. There are numerous adhesions about the gall bladder. The consistency is soft. The cut surface has a typical mottled red and yellow appearance seen in a nutmeg liver (in chronic passive congestion). The gall bladder is atrophied, its wall thickened and its lumen filled



with three large stones. The spleen as you notice is normal. The same can be said of the pancreas. Both kidneys are considerably enlarged. The capsule strips off readily. The outer surface is pale. The consistency is soft. The cut surface is very wet and the medulla is very congested. The cortex is swollen to twice the usual thickness. The gastro-intestinal tract shows nothing worthy of note except the peculiar granular patches of thickened peritoneum similar to that noted on the surface of the liver. A similar granular thickening extends over the parietal and mesenteric peritoneum.

These lungs are of especial interest in that dyspnoea was such a striking symptom. You will note that both are much enlarged and are very voluminous. Yet neither of them is the seat of a definite consolidation. They are unusually tough in consistency. The pleural surface is very peculiar in that it shows an interlacing network of white markings. The organ cuts with resistance and the lung tissue seems denser than is usual. In addition there are many small white nodules throughout the cut surface that suggest tubercles. Furthermore there is a large caseous gland in mediastinum.

The pelvic organs are equally of interest. The uterus is enlarged and distorted by the presence of several typical fibroids. The endometrium is roughened and more granular than is usual. The ovaries are markedly enlarged and distorted and displaced by cysts and adhesions. None of the cysts are over 3 cm. in diameter. The tubes are also enlarged and distorted but no other abnormality. Some of the retroperitoneal lymph glands were enlarged and the cut surface was opaque and white suggesting a tumor growth. Thus far the interpretation of the gross findings and their correlation with clinical picture is very difficult.

The microscopical findings, however, are very conclusive. The only organs of especial interest in this connection are the lungs, uterus and peritoneal surfaces of the viscera. The peculiar white markings on the pleura are due to lymphatics distended with masses

of epithelial tumor cells. The nodules found throughout the lung substance and thought to be tubercles were likewise nests of tumor cells. In addition the entire lung framework especially about the vessels and bronchi was thickened. Even the alveolar walls were several times as thick as is normal. In this increased fibrous tissue there were scattered cords of tumor cells. The sections of the thickened peritoneum showed masses of young connective tissue infiltrated with tumor cells. The same tumor cells were found in the enlarged lymph nodes. The sections of the uterus showed no large cellular tumor mass except the fibroids. However the endometrium showed the same fibrous tissue infiltrated with tumor cells as was noted in the other organs and this is probably the primary seat of the neoplasm. It explains the menorrhagia of the patient.

In other words we have here a diffuse carcinoma of the uterus which is a very unusual type of malignancy in this region. This is associated with considerable pelvic pathology such as fibroids, cystic tubes and ovaries and adhesive peritonitis. In addition there was a diffuse carcinomatous infiltration of the peritoneum, accounting for the patient's abdominal tenderness and a similar diffuse carcinomatous infiltration of the lungs causing the severe dyspnoea. Thrombi of various types were present in many of the vessels of the lungs, and may explain the patient's sudden death.

The second case was of a very different character though here also dyspnoea was the most prominent symptom. This patient was a Mexican woman who came into the hospital complaining of shortness of breath. She also had edema of the feet and pain in the upper part of the abdomen. She had a severe cough for the past three years following an attack of influenza. The abdominal pain began around the heart area about two months ago.

The physical examination showed a woman 35 years of age with marked edema of the lower extremities, and in a semi-recumbent posture breathing with some difficulty. She

was cyanotic. There were paroxysms of coughing associated with increase of the dyspnoea. There were evidences of fluid in the peritoneal and pleural cavities. The heart sounds appeared normal. The heart did not seem enlarged. The pulse was rapid and weak. The lungs had some bubbling rales over both bases. The urine was somewhat scanty and contained considerable albumin and occasional casts. The edema and dyspnoea gradually increased and the patient died ten days after admission into the hospital.

The clinical diagnosis was acute parenchymatous nephritis, with a terminal cardiac failure. Dilatation of the right heart was suspected.

At autopsy the body was that of a well nourished woman with marked edema on the right side. The right thigh was fully twice as large as the left. The left ankle showed little edema though the right was very edematous. The right upper extremity was also more edematous than the left. The face was rather puffy in appearance. The abdominal cavity showed a slight excess of serous fluid. There was also an excess in both pleural cavities but this was not marked. The pericardial cavity was not distended with fluid. On removal of the sternum the most striking change noted was that the precordial space was entirely covered with lung tissue.

Of these organs obtained at this autopsy, the heart and lungs are the only ones that are worth discussing. Note the peculiar shape of the heart. It is not markedly enlarged. It has a more rounded shape than is usual but the most striking feature is that the right side is larger than the left (just the reverse of the normal heart). On opening the heart we find a very marked hypertrophy and dilatation of the right side of the heart while the left side appears normal. Furthermore, in seeking to find cause of this right sided lesion we fail to find any congenital anomaly, also there is no valvular lesion. Consequently, we must seek some cause outside of the heart which would greatly increase the work thrown on the right side. The only factor would be some obstruction in the pulmonary vessels,

but there is no stenosis in the pulmonary artery.

Examination of the lungs gives the explanation of the right sided hypertrophy and dilatation. Note that both of these lungs are large, voluminous, and have a doughy soft feel. Neither one shows large consolidations. There are many small nodules particularly about the vessels and bronchi. The lung cuts with increased resistance and there is apparently an increase in the lung framework in scattered foci. The other organs such as the liver, kidney and spleen show nothing but marked passive congestion.

The microscopical examination of the heart shows myocardial degeneration associated with hypertrophy on the right side. The picture is the same as is so commonly seen in advanced lesions of the mitral or aortic valves only affecting more the right side of the heart than the left. The microscopical picture of the lungs is very markedly changed. Many of the alveoli have ruptured into each other. The alveolar walls are very much thinned out and the rich capillary network normally about the air sacs is obliterated. In addition the walls of the pulmonary arteries are considerably thickened. In other words we have here an emphysema with marked capillary stenosis and arteriolar obliteration a condition which has the same effect on the pulmonary circulation that general arteriosclerosis has on the systemic circulation. In both cases the resistance to the blood flow is markedly increased the only difference being that in this case the brunt of the work fell on the right side of the heart whereas the left side is usually affected primarily. Death was due to failure of the heart to overcome the increasing resistance in the pulmonary tree.

The unilateral edema in this patient is worthy of comment. Shortly before death this patient lay on the right side and in cardiac edema the fluid passes to the dependent parts. The kidneys showed nothing but chronic passive congestion.

The most striking symptom in both of these cases was dyspnoea. In both cases there was



no obstruction to the air passages. In the first case the shortness of breath was severe, regardless of the posture of the patient, while in the second case some relief was obtained in the sitting posture. While there was no obstruction to the respiratory passages in either of these cases there was an interference with respiration in the broad sense in both cases. We should recall that, broadly speaking, respiration involves four distinct phases the interference of any one of which will cause respiratory distress and shortness of breath. These are (a) act of breathing—includes the mechanical movements of the lungs and chest in inspiration and expiration; (b) the exchange of oxygen and carbon dioxide in the alveoli (interchange of gases); (c) the conveyance of gases by the blood, and (d) the interchanges of gases in the tissues. In the first case there was a marked increase in the distance between the capillary walls and the alveolar walls so that the gases diffused with great difficulty even though the blood supply was ample. In the second case both factors (b and c) were at fault. Because of the thinning of the alveolar walls the capillary bed was greatly reduced thus lessening the extent of diffusion of the gases. In the second place slowing down of the blood flow reduced the blood and hence the gases conveyed to the lungs. This however is not as important as the second factor because if marked the blood would soon damn back on the venous side and death occur as it probably did in the second patient.

These two cases are examples where the dyspnoea was essentially due to a disturbance in the diffusion of gases from the pulmonary capillaries into the air sacs. In the first this was brought about by increasing the distance between the capillaries and the air spaces. In the second by destruction of a great part of the capillary bed in the lungs by the emphysema.

R

Relying on the fact that when the ducts of the pancreas are tied the acinous portion of the gland is replaced by fibrous tissue while the islands of Langerhans are not affected, Banting and Best tied the ducts of the pan-

creas of dogs and after seven to ten weeks removed the pancreas and made an extract of the chilled gland with a neutral solution. This extract when injected intravenously into depancreatized dogs caused a fall in the blood sugar and a decrease in the amount of sugar excreted. Later a pancreatic extract was made from a bovine foetus which was capable of keeping a depancreatized dog alive for 70 days.

Seven cases of diabetes were treated with intravenous injections of the pancreatic extract with favorable results. There was a fall in blood sugar and decrease in amount of sugar excreted and disappearance of aceto-acetic acid from the urine.

The physicians and surgeons of Missouri are second to no other state in the union, professionally. At present they are handicapped by their legislators who have just heard from the French Revolution (1792) when "by vote the French abolished their eighteen medical faculties and fifteen medical colleges and the practice of medicine and surgery was thrown open to every one who could pay for the license." Such a condition wrought chaos in progressive medicine. And it was not until 1803-4 that the medical and surgical faculties were restored and an examination for proficiency in medical knowledge exacted before the applicant received a diploma. It is to be hoped that the Missouri legislator will read down the page of this history during the coming quarter of the century and learn the result of the open shop French legislation and like Frenchy reverse himself and restore one of the learned professions to its rightful heritage in the galaxy of the sister states.

A proof of increased intelligence in the laity, when they consult a physician professionally, is a willingness to go away from his office without medicine or a prescription for medicine, having paid for the consultation. Twenty-five years ago if the physician did not give or prescribe medicine or advise an operation on the patient, a doctor was consulted who would give or prescribe an operation or do all three, to the satisfaction and delight of the patient and his friends.

# THE JOURNAL

of The

## Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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### An Important Decision

Our medical practice act is old. It was framed at a time when the standards of medical education had barely begun to advance. Its specific provisions do not now meet the requirements for maintaining our present high standards. There has always been some question if, under these provisions, the Board could enforce its rules regarding the qualification of applicants for examination. The Supreme Court has recently decided, in the case of Albert D. Jones vs. The Kansas State Board of Medical Registration and Examination, that "the State Board of Medical Registration and Examination has power to promulgate and enforce a rule that only graduates of medical colleges whose standard of excellence is denominated as Class 'A' by the American Medical Association will be permitted to take the examination for licenses to practice medicine and surgery in this state." The opinion of the court develops a broad conception of the duties and responsibilities of the Board, which is essentially an administrative branch of the State Government. Involved in this opinion, and of basic importance in it, is a principle handed down by the court in the case of *The State vs. Younkin*, that, in plain terms, granting a power, or prescribing a duty to a public of-

ficer or board carries with it by implication whatever authority is necessary for the effectual exercise of the power or proper performance of the duty.

The opinion is interesting and instructive and offers some suggestions that should be carefully considered. It should be read by every member and preserved in the archives of the Society.

The opinion of the court was delivered by

DAWSON, J.: The plaintiff, Albert D. Jones, Jr., brought this action in the district court to compel the defendant, The Kansas State Board of Medical Registration and Examination, to permit him to take the examination for a license to practice his profession as a physician and surgeon in this state.

The district court denied the writ of mandamus prayed for, and plaintiff appeals.

The facts touching plaintiff's qualifications are not in dispute. Jones is a resident of Topeka, 27 years old, of good moral character, and has studied medicine and surgery for four years during terms of not less than six months each year, and has paid the examination fee, and otherwise conformed to the rules prescribed by the defendant board for candidates for examination, except on one point which will require careful statement herein.

It appears that there is in this country an unofficial organization known as the American Medical Association, the membership of which and the purpose of which are not disclosed, but which we may presume to consist of eminent men in the medical profession who are prompted by a laudable desire to elevate the standard of their profession and the standard of medical schools; and this association has classified the medical colleges of this country into three groups, A, B, and C. Class "A" colleges are those whose entrance requirements, courses of study, teaching staffs and equipment and the like are of a satisfactory standard of excellence. Class "B" colleges are of a lower grade of excellence but which may shortly attain to first class standards.

Class "C" medical colleges are simply those which refuse to countenance any inspection, supervision or meddling with their collegiate work by any representative of this unofficial "American Medical Association," and as to which colleges this so-called association has no authentic data. These Class "C" colleges do permit and invite all state boards of medical examiners to visit and inspect their col-



legiate work, and the defendant board has that privilege.

The Kansas City College of Medicine and Surgery, which is the school plaintiff attended and from which he was graduated, is a Class "C" college. It repudiates the unofficial suzerainty of the American Medical Association, but permits and invites inspection by official boards of medical examiners, including the defendant board. The latter has not inspected this college since 1917, at which time it approved its qualifications and equipment and allowed some of its graduates to take the state examination.

In 1918, the defendant board promulgated a rule:

"That nothing but 'A' class colleges be recognized after February 15, 1922, and in the meantime graduates from class 'B' schools will be permitted to take the examination until February 15, 1922, but no recognition hereafter will be given a college in class 'C.'"

The gist of plaintiff's contention is that the defendant had no power to promulgate this rule, nor to prescribe qualifications for candidates for examination in addition to those prescribed by statute.

The powers conferred upon the state board are found in Article 24 of Chapter 108, Gen. Stat. 1915, §10197-10206. Counsel for the state board cite a clause in section 10197 as justifying the board's power to make the rule which bars the plaintiff from the right to take the examination. This clause reads:

"It (the board) shall formulate rules to govern its actions."

Elsewhere in the statute we note certain powers which the legislature intended the board to exercise.

The board is required to keep a register of all applicants for licenses to practice medicine, the age of the applicants, a record of the time they have spent in the study of medicine, and the name of the institution or institutions from which the applicants may have received degrees or certificates of medical instruction. (§10197.) The board may refuse licenses to felons, to grossly immoral persons, and to those seriously addicted to liquor or drug habits, (§10198.)

The board is also authorized to grant licenses to graduates of high grade medical colleges of this country or foreign countries without examination, and in lieu of examination the board may accept certificates of registration issued by other states or foreign countries where high standards of qualifications are required of medical practitioners; and it may

grant temporary permits to practice medicine. The exercise of these powers is discretionary. The examination itself shall constitute a fair test of the qualifications of the applicants in—

"All those topics and subjects a knowledge of which is generally required by reputable medical colleges of the United States for the degree of doctor of medicine." (§10199.)

With these powers expressly granted, there goes also a grant of such implied powers as are necessary for the effective discharge of all the responsible duties imposed on the defendant board. In *The State ex rel., v. Younkin*, 108 Kan. 636, 638, ——— Pac. ———, we said:

"While the powers of a public officer or board are those and those only which the law confers, yet when the law does confer a power or prescribe a duty to be performed or exercised by a public officer, the powers granted and duties prescribed carry with them by necessary implication such incidents of authority as are necessary for the effectual exercise of the powers conferred and duties imposed."

The board must ascertain as best it can what are the professional branches of science and art taught and practiced in reputable medical colleges. Nor is the court disposed to impose narrow restrictions on the defendant board in their determination of this important matter. We think it may well mean more than getting a mere list of the branches of learning—*anatomy, physiology, hygiene, physics, chemistry, etc.* It can hardly be said that the board is without power to determine the requisite thoroughness with which such sciences are studied and taught in these colleges, and it is difficult to say that the board may not inquire into the related question of the general educational requirements upon the study of medicine and surgery; nor can it be denied that the state board can consult the proceedings of the American Medical Association, and its standards of professional scholarship, and that the board's opinions of Kansas requirements can be at least partially founded thereon.

It is contended by plaintiff that the statute does not require an applicant for a license to be a graduate of any medical school; that he may get his medical education wherever and however he pleases, so long as he acquires it with sufficient thoroughness to pass the examination with satisfactory grades. This contention is plausible, but it may very well be that the examining board has determined upon full and fair inquiry into all sources of information, and upon their own profes-

sional knowledge and experience, that there are important branches of medicine and surgery, like diagnosis, obstetrics, and others which cannot be mastered except by instruction and guidance under trained teachers in medical colleges having the requisite equipment therefor; and that in this day of advanced and advancing science, it is altogether out of the question to license applicants to practice medicine and surgery without such efficient collegiate training, no matter how creditable a showing such applicants can make on paper in a written examination. True, this statute is twenty-one years old; it was about the first of a series of statutes by which the state has gradually expanded its governmental power over professional or semi-professional employments; and the grants of power expressly conferred are more narrow than those granted to similar state boards of later creation. Thus, in later enactments the state board of osteopathic examiners is granted very broad powers in very short language:

"The board \* \* \* \* shall formulate and adopt all necessary rules, regulations and by-laws." (§10207.)

The board of chiropractic examiners \* \*

"Shall have authority \* \* \* \* and shall from time to time adopt such rules and regulations as they deem proper and necessary for the performance of their duties, and they shall adopt a schedule of minimum educational requirements which shall be without prejudice, partiality, or discrimination as to the different schools of chiropractic." (§10216.)

Illustrations of this sort could be greatly extended. Even the state board of embalming has been given elaborate powers to make reasonable rules touching the right of persons to practice the art of embalming. (§10309; *Miller v. State Board of Embalming*, 110 Kan. 135, —Pac.—.)

Speaking of the powers conferred on the secretary of the state board of agriculture, this court, in *The State ex rel., v. Mohler*, 98 Kan. 465, 471-2, 158 Pac. 408, said:

"It (the act) merely confers upon him administrative power such as has become common in this state. The state charter board is given similar power to grant or withhold a charter for a bank. (*Schaafe v. Dolley*, 85 Kan. 598, 118 Pac. 80.) The insurance commissioner is authorized to grant, withhold and revoke licenses to transact insurance business in Kansas. The public utilities commission is authorized to grant or deny permits to conduct a public-service business. The

state board of medical registration and examination is authorized to grant, deny or revoke licenses to practice medicine. (*Meffert v. Medical Board*, 66 Kan. 710, 72 Pac. 247.) The exercise of such power is merely the exercise of administrative discretion. If this power is abused, the courts are open to the aggrieved party. If not by some statutory review, then by the extraordinary and prerogative remedies of injunction or mandamus. And by no course of reasoning can a distinction be made between the licensing and other administrative powers conferred by this act upon the secretary of the board of agriculture and the similar broad and valid powers conferred upon the many other official boards and functionaries with which the state has provided itself for the proper and effective conduct of its governmental business." See also 30 Cyc. 1550 et seq; 21 R. O. L. 365, 366.

The judgment is affirmed.

*Johnston, C. J., Burch, J., Mason, J., Porter, J., and Marshall, J., concurring.*

*Dawson, J., and West, J., dissenting.*

—R—

### Proposed Amendment to the Marriage Laws

Recent publicity matter sent out by the secretary of the Children's Code Commission indicates that some very important changes in our marriage laws are to be proposed.

An amendment will be offered requiring that both contracting parties register in the probate court their intention to marry, ten days before a marriage license may be issued. Another amendment will require a physical examination of both parties before marriage, implying of course, that a certificate of health will be a prerequisite to the issuance of a license.

It is stated that from July 1920 to July 1921 there were 21,078 marriage licenses issued in Kansas, and that during the same period 4,191 divorces were granted. It is also stated that a large part of the worst cases of divorce are due to hasty marriages.

Before one could accept these statements as a basis for argument it would be advisable to know just what part of the total number of divorces "a large part of the worst cases" really is. It might also be advisable to determine what is meant by "hasty marriages." A man and a woman who have known each other well for years may decide to get mar-



ried and do so in a few hours. That is a hasty marriage but under normal conditions not one to which serious objection could be raised. Presumably the term used is meant to refer to those marriages which occur after very short acquaintance since this amendment is calculated to obviate them one would say an acquaintance of less than ten days. Why the minimum time should be fixed at ten days is not explained. Presumably the delay is intended to permit contracting parties to have ten days—or ten days longer than they may have already had—in which to get acquainted. Or, perhaps, the ten day notice is intended for the friends of the contracting parties in the event they may wish to intervene or interfere with the consummation of the proposed nuptials. It is doubtful if friends and relatives are better able than the interested parties themselves to determine their individual adaptability to each other. It is doubtful if an onlooker, no matter what his relationship, is able to appraise the personal attractions of the contracting parties for each other—which so largely determine the success or failure of marriage. One who attempts to intervene between an infatuated woman and the man she has chosen to wed, or between an infatuated man and the woman he wants, will find his occupation both hazardous and unprofitable.

The doctors in Kansas know that a large per cent of hasty marriages, especially those which terminate in desertion and divorce are emergency measures in which a marriage is contracted in order to avoid a situation economically and socially less desirable than wedlock, even though it be of short duration. Neither the publicity nor the ten day delay will relieve a precarious situation, but may permit a social disaster which a hasty marriage might avert.

A law requiring the physical examination of the contracting parties to a marriage and a certificate of health as a prerequisite to issuance of a license would undoubtedly meet the hearty approval of the medical profession. There is some question, however, if the people are as thoroughly convinced of the im-

portance of such a measure. At this time it is not unlikely that some measure providing for birth control among the unhealthy and the unfit would be more welcome to the public.

Measures of this kind, the ten day notification and the requirement of a physical examination, can be effective to only a slight degree, so long as citizens of Kansas can be quite as legally married in some other state without these restrictions.

—R—

### A New Law Needed

At the last meeting of the Society the Committee on Legislation, in its annual report, advised that "it would not be wise to agitate or recommend any legislative policy this year." Had the committee been able to anticipate the suit brought against the Board of Examiners it is possible that different recommendations would have been made. In his dissenting opinion, Justice Dawson said, "The standards of the medical profession have simply run away ahead of the statute. The statute is twenty-one years old and taught to be brought up to date."

Had the Supreme Court restricted the authority of the Board to the specific provisions of the medical law it would, of course, no longer have been possible to maintain our present high standard of medical education in Kansas. When the law was passed, in 1901, its provisions were ample to meet all requirements. There was none among us able to foresee the advances in medical education that were to be made; there is none among us now able to foresee the changes in medical education that will occur during the next quarter century. It is evident then that whatever legislative plans we may adopt there must be kept in mind the probable changes yet to come. No specific educational requirements that could be made now would be adequate for the needs of the future. It is necessary that any further legislation for the regulation of the practice of medicine should be sufficiently elastic to meet the demands occasioned by a greatly expanded or a completely revolutionized system of medical education. It is doubtful if such a law could be

framed, and it is doubtful if it is necessary to embody in our law any specific requirements for admission to the examination for license. The suggestion derived from the opinion of the court indicates that the obvious solution of the problem would be to endow the board of examiners with authority to make its own rules and regulations for the admission of candidates for examination and for determining their qualifications for license to practice, with the provision that the Board shall maintain a standard of educational requirements equal with those of other states. This is practically the status of the Board at this time, under the present law and with the decision just handed down by the Supreme Court.

Some may object to delegating to the Board so much authority and so much responsibility, but it may be suggested that the efficiency of any law we may succeed in getting passed will depend upon the zeal and integrity of the Board of Examiners upon whom its administration devolves.

### —R— Kansas Children's Code

#### SHEPPARD-TOWNER ACT

The Children's Code Commission is urging an appropriation to the Division of Child Hygiene at the next legislature which will secure the maximum federal allotment under the Sheppard-Towner Act. Unfortunately Kansas can at present qualify to receive only \$7,500.00 of the federal aid, the total Kansas appropriation to its Division of Child Hygiene. The maximum allotment to Kansas, on a basis of population, is \$16,922.51, which is granted on condition that a similar sum is appropriated by the state. Five thousand dollars, the flat sum apportioned to each state, has recently been received by the State Board of Health. It is hoped that the next legislature will make the necessary appropriations so that the entire federal allotment can be secured.

The Kansas State Board of Health has just added four public health nurses to its staff, one state supervising nurse, and three advisory nurses, as the first step in the develop-

ment of the Sheppard-Towner program. These advisory nurses, trained in maternal and infant hygiene, will organize the work of the state by assisting and training the county and municipal public nurses already in the field in maternity and infant work. There are now over 130 public health nurses working in the counties of Kansas.

#### KANSAS ACTIVITIES OUTLINED

1. Educational. This educational work is carried on through the distribution of literature, making of public speeches to various groups of people, particularly mothers and expectant mothers, the showing of moving picture films obtained from a loan library to public health workers and nurses, and the use of exhibits and posters.

2. The Public Health Car "Warren." This is a Pullman car donated in 1915 by the Pullman company to the State Board of Health, which has been fitted up as a demonstration car, with health exhibits of all kinds. This car carries a personnel of two nurses and a helper and sometimes a doctor. It serves the following purposes:

(1) It brings the staff closely in touch with the mothers of the communities, in order that the problems of maternity and infancy may be discussed with them personally.

(2) It asks for close co-operation with the schools. The entire school has an opportunity to visit the car, by classes, after which every pupil is required to write an essay on the meaning and value of the things he saw on the health car. This might be called the "rubbing-in process."

(3) It holds mothers' conferences and children's clinics, and if possible promotes some permanent sort of an organization, under local or community supervision, through which means clinics, conferences and lectures may be featured at stated periods. In the past these conferences have been so well attended that it has been necessary to place chairs on the outside of the car for the mothers with their babies while they were waiting for an examination.

3. Study of Maternal and Infant Mortality. The report of the vital statistics bureau



of Kansas for 1921 shows 61.4 infant deaths per 1000 births. In the cities the death rate runs higher than the state rate, 80 deaths per 1000 births in Topeka and 76 in Kansas City in 1921.

Already a start has been made by the Division of Child Hygiene in a study of the cause of the 1389 still births in Kansas in 1921. In the city of Topeka and Shawnee county, which is the department's headquarters, an intensive study is being made of the cause of all infant and maternal deaths and the cause of all still births occurring in the area in 1922. This study will be in co-operation with the attending physician. The study unit will include the city of Topeka, with a population of approximately 55,000 and of Shawnee county, the rural community immediately surrounding the city, with a population of 12,000.

4. Miscellaneous. It is planned to make an intensive campaign for the purpose of increasing birth registration. Counties and municipalities in the state that do not show what is considered a normal birth registration will be carefully checked by a representative of the division of vital statistics. Birth registration is of vital importance to research work as it gives the figures and the data from which studies may be made. The death rate we know accurately, because a license must be issued for all burials. If the birth figures are not correct through a proper reporting of births the statistics compiled are of little value, and there are no accurate records to be used as a basis for prevention work.

A very careful grading and inspection of children's homes and maternity hospitals has been made, and will continue to be made under a state law which provides that such inspection shall be made by the Division of Child Hygiene of the State Board of Health. Licenses are only issued when certain minimum requirements are met. The work in the past has been hampered by lack of funds. It should now proceed on a more adequate basis.

The policy of providing a one per cent solution of silver nitrate to the midwives and physicians of the state will be continued. This is a solution for the prevention of blindness

due to gonorrhea, and other bacteria sometimes present at birth.

It is planned to secure a prominent baby specialist to address the various county societies, so that the medical profession may be advised of the latest word in the feeding of infants and infant care in general.

Many of these activities have been carried on by the Division of Child Hygiene since its creation. With the increased money at its disposal, these activities will be enlarged and intensified.

Arrangements have already been made, in part, to work closely in co-operation with local municipal public health associations and with the State Tuberculosis Association in so far as their work applies to infant hygiene.

The Sheppard-Towner Act provides certain purposes for which the federal money may not be used. It may not be applied to the purchase, erection, or repair of buildings or equipment, for the purchase or rental of buildings or land nor for the payment of any maternity or infancy pensions. This clause is to safeguard the central purpose of the act, which is the instruction of the expectant mother and mother of infants, and the nurse as to the standard care of mother and child.

This department for the study and care of mothers and infants is a step in a forward-looking movement. It shows that the government is beginning to be as interested in the saving and care of mothers and babies as it has long been in the care of live-stock. In a survey of the live-stock situation, J. C. Mohler, secretary of the State Board of Agriculture, showed that in the ten years from 1912 to 1922 the loss in livestock has been reduced 72 per cent by the program of the state departments of agriculture. The number of deaths of livestock was reduced from 527,500 in 1912 to 144,000 in 1921.

During the same period, 1912 to 1921, it is estimated that four and one-half years have been added to the human life, by improved sanitation, passing of the common drinking cup, use of vaccine and serums and adoption of new methods of medical and surgical science.

"If in a ten year period we can lengthen the average human life four and one-half years, with the small means and facilities we have had," said Dr. Crumbine, "what may we not expect to accomplish in the next ten years if our legislature will give us the means to carry on our work as it should be carried on? Certainly we will be able to add more than four and one-half years to the average human life—and what can be of more value to this state than the lives of its citizens?"

Public health officials and large number of specialists interested in maternal and child hygiene are on record approving the act, and are assisting in carrying out its provisions. The state and Provincial Health Officers' Association not only endorsed the Sheppard-Towner act at two annual sessions prior to its becoming a law, but reaffirmed its position by the following resolution passed in May, 1922. "We approve the action of the Board of Maternity and Infancy Hygiene and the Children's Bureau of the Department of Labor in their practical interpretation and administration of the Sheppard-Towner Act; and we pledge the several state health departments to such effective co-operative work as will make motherhood in this country safer and as will conserve the lives of increasing numbers of babies from year to year.

### — R — CHIPS

It is not enough for a doctor to look all right, he must be right or the bogieman (the people) will catch him. It is inside the man that counts. A graceful exterior wears, only, as nourished from within, the same as the cuticle of the skin.

In England there is an increasing demand for an official post mortem when the patient dies on the operating table or immediately after after the operation. This would be a checking up of the surgeon's work, a proving, as the Homeopath would say. It might prove too much, now and then. It would have an aseptic tendency on the body politic.

The old pilot's answer to the captain

whose steamboat was stuck on a sandbar makes a safe surgeon. When asked by the captain, to whom he had made application for a position, if he knew where all of the sandbars were in the river, the pilot said, "No, but I know where they ain't.

Moral: It's about an even Stephen, in surgery, to know where the danger points are as to know where they ain't.

Fasting is recommended in a case of diabetes. Brute animals fast when they are sick and some of them, notably the dog and cat, take an emetic. Is this a suggestion of nature's or an invitation to man to do likewise?

To remove a corn, stick a corn pad on it and fill the hole in the pad with a 25% salicylic ointment pressing the ointment well against the corn. Repeat for three or four nights. Adios—corn.

It might be good advice for the doctors to tell his patient "to do as I say and not as I do." But a physician's influence is weakened or destroyed and his advice is not likely to be strictly followed when he does not set the example by his own conduct and follow the advice given to his patient, when placed in the same condition. A doctor should live his advice the same as a preacher.

About 7 parts of every 100 parts of mother's milk is said to be protein. According to this index a full grown man should have about 10 parts protein in his intake at each meal.

For restlessness and insomnia take a neutral bath. That is, water just a little below the normal temperature of the blood.

"The normal systolic blood pressure should be 100 plus one half the age of the patient." To the doctor who know this is an inquiry. To the doctor who does not know, this is a suggestion.

The instruction in diet give into a patient who has an abnormal blood pressure, by the present time physician, smacks of the belief "that man is what he eats."



The Pathfinder says that a blue light focused on a vein will cause the blood to concentrate (congest) while a red light will make it flow more quickly. (?) Better look it up.

While progress in medicine marks the advance of civilization "the progress in medicine itself, in the lay mind, is only a succession of forgotten theories."

Christian Science overdone. A bow legged man, of the first degree, was treated in the usual orthodox Christian Science way, and directed to repeat, "I am not bow-legged, I am not bow-legged" 150 times each night for 10 nights. He forgot to follow directions and repeated, "I am not bow-legged", 1500 times the first night and when he awoke next morning he was knocked-kneed.

History tells us that "the first medical school on the North American continent was founded by the Spaniards in the City of Mexico in 1578."

The extraction of decayed teeth, for the cure of disease was suggested by Benjamin Rush 150 years ago. The idea hibernated for a long time, or gestation was slow. "Oh! Why should the spirit of mortal be proud?"

Another proof of man's ape origin is skin swirls and patterns in the finger prints of the orang-outang and that of man being almost identical.

If the dumb animals could vote they would put an end to antivivisection propaganda. By experimenting on the living hog and calf with serums to prevent cholera and black leg, has saved hundreds of thousands of their lives and great suffering where it has caused one death. Since the hog and calf cannot vote any more intelligently than the antivivisectionists, statistics are used instead to verify the dumb animals wishes.

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## DEATHS

Samuel Milton Fratt, Topeka, died July 14, aged 86, from senility. He was graduated

from the Homeopathic Medical College of Missouri, St. Louis, in 1861.

William Giles Martin, Topeka, died recently, aged 69, at Ottawa, Kansas, from angina pectoris. He was graduated from Rush Medical College in 1888.

Lyman L. Uhls, Overland Park, Kansas, died August 4, aged 65, at the Research Hospital in Kansas City, Mo. He was graduated from Rush Medical College in 1884. For fourteen years he was superintendent of the Osawatimie State Hospital for the Insane; head of the Uhls Sanatorium, Overland Park; was elected a member of the state legislature in 1918 and in 1920; professor of psychiatry at the University of Kansas School of Medicine; member of the American Medico-Psychological Association.

Dr. Wilhelm A. Gartner died of blood poisoning at Ensworth Hospital, St. Joseph, Mo., June 30, aged 38. He was a major in the Medical Corps of the 89th Division, was wounded and gassed in the St. Mihiel-Argonne drive. He graduated from Ensworth Medical College, St. Joseph, Mo., 1914. He was a Fellow in the A. M. A. and a member of Doniphan county medical society. He leaves to mourn him his wife and two little girls.

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## SOCIETIES

### SUMNER COUNTY SOCIETY

Sumner County Medical Society met at 7:30 p. m., Thursday, August 31, at The Park House, Wellington.

A Symposium on Obstetrics.

Eclampsia, Dr. A. J. Hetherington.

Pernicious Vomiting, Dr. M. W. Axtell.

Placenta Praevia, Dr. W. H. Neel.

Prenatal Care, Dr. H. G. Shelley.

Registration Births and Deaths—Dr. Chas. Lerrigo, Topeka.

Delivery: Normal, Dr. J. C. Wall: Version, Dr. E. F. Clark: Forceps, Dr. F. C. Caldwell: Operative, Dr. A. R. Hatcher.

T. H. JAMIESON, Secy.

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### NORTHEAST KANSAS SOCIETY

The regular fall meeting of the Northeast

Kansas Society will be held at Atchison on Thursday, October 26. The program will appear in the October number of the Journal.

#### SHAWNEE COUNTY SOCIETY

At the regular monthly meeting of the Shawnee County Medical Society, to be held October 2, Dr. M. F. Engman of St. Louis, will read a paper on Syphilis. Dr. Engman is Professor of Syphilology and Dermatology at Washington University.

#### JOINT MEETING

The crowning feature of the joint annual meetings of the Medical Association of the Southwest and the Tri-State Society at Hot Springs, Ark., October 16-17-18, will be three clinics which will be most profitable and well worth making the trip for, even if there were not other helpful scientific matters for discussion.

Dr. W. T. Wootton, of Hot Springs chairman of the general committee announces that the mornings will be given over to clinics, the afternoons to scientific papers and the evenings to get-together meetings of the various college alumni and the usual social features. The Eastman hotel will be headquarters, registration, exhibits and sessions all held under one roof.

The clinics will be conducted by authorities of nation wide fame and this meeting if the plans of the committee carry will no doubt go down in the history of each society as its most successful meeting. The clinics—

Heart and Blood Vessels—Kidney Diseases of Every Form.

Neuro-Syphilis.

Arthritis and all Forms of Joint Infections.

Dr. St. Cloud Cooper of Fort Smith, Ark., is president of the Southwest Association and Dr. Charles A. Smith of Texarkana, Ark., is president of the Tri-State Society.

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#### Clinic Week

##### KANSAS CITY, MISSOURI

Program for clinical week of the Academy of Medicine, October 3, 4, 5 and 6. October clinics will be held at each of the following

hospitals: Mercy Hospital, Kansas City General Hospital, U. S. Public Health Hospital, Trinity Lutheran Hospital, Bell Hospital, St. Margarets Hospital, Bethany Hospital, Christian Church Hospital, St. Lukes' Hospital, St. Mary's Hospital St. Joseph's Hospital, Research Hospital.

Bulletins will be published at headquarters in Hotel Baltimore, indicating the kind of clinic and the conductor the day preceding same.

The evening of the fifth a banquet will be held and a speaker of national reputation will talk upon some live medical question of the day.

The evening of the sixth the Academy of Medicine will give its program.

There will be three essayists: Dr. P. T. Bohan, Medical; Dr. Jabez Jackson, Surgical; Dr. Frank Hall, Pathology.

The Kansas City Priest of Pallas hold their carnival on the same dates but this will not interfere with the medical program as the Priest of Pallas have nothing scheduled for the morning.

Bring your wives to the city and let them attend the Priest of Pallas Ball with you on Tuesday night and on the other nights you can attend the medical functions and the ladies will be entertained.

We intend to make these yearly clinics permanent.

C. C. DENNIE.

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#### The Gorgas Memorial Fund

At the St. Louis Annual Session the Board of Trustees reported to the House of Delegates that in response to a request received from the directors of the Gorgas Memorial Institute of Tropical and Preventive Medicine for the co-operation of the American Medical Association, the Board had taken action which resulted in the appointment of a committee, representing the American Medical Association, to act on the project. The following were appointed: Dr. George E. de Schweinitz, Philadelphia; Dr. Charles W. Richardson, Washington, D. C., and Dr. Fred B. Lumm, Boston.



The House of Delegates unqualifiedly endorsed the Gorgas Memorial as a tribute to a past President of the organization and one of the most distinguished and loved members. At its recent meeting the Executive Committee of the Board of Trustees received the following statement from the committee and directed its publication.

#### STATEMENT AND APPEAL FOR COOPERATION

As a result of the stimulating suggestion of President Porras of Panama it has been resolved that a fitting memorial shall mark the humanitarian service of the late Major-General William C. Gorgas, and the beneficent influence of his life and work on mankind throughout the world. Following the thought of President Porras, it has further been decided that this memorial shall take the form of a scientific institute for the study of tropical diseases and of preventive medicine.

No better place could have been selected than Panama City, the gateway between the Atlantic and the Pacific, where General Gorgas' well-planned and executed work made possible the building of the Panama Canal.

It is hardly necessary to call the attention of the medical profession to the far-reaching effects of General Gorgas' work on the welfare of the people of the world, especially in tropical and semitropical climates, and in all places subject to the inroads of infectious disease.

We of the medical profession remember him as our Surgeon General during the early part of the World War. We remember his prompt recognition of the necessity of bringing into active service large numbers of physicians and surgeons from civilian life. We remember his genial and kindly nature, his high character, and his steadfast effort directed toward the organization and equipment of the Medical Corps of the Army. We remember the patriotic response. We remember him as a great sanitary officer, to whom we wish to pay a lasting tribute.

A central committee has been formed, with Admiral Braisted, retired, ex-President of the American Medical Association, as its president. The American Medical Association has

appointed a committee of three to work in accord with the central committee, and through its members this appeal is made to the American medical profession.

The plan is to build at Panama an institute for the study of tropical and infectious diseases, with a hospital, laboratories, departments for research and all other facilities required in an institute of this character, erected and administered according to the most progressive, modern ideals. The Panamanian government, owing to the far-sighted, philanthropic vision of President Porras, has donated the great Santo Tomas Hospital, and also the ground on which it is proposed immediately to construct the buildings as they have been described. Dr. Strong has been appointed the scientific director.

In conjunction with this work in Panama, there will be established in Tuscaloosa, Ala., the Gorgas School of Sanitation for the purpose of training country health workers, sanitary engineers and public health nurses, especially educated to deal with the problems peculiar to the Southern states.

An endowment of six and one-half million dollars will be required to enable the institute to carry on the work according to the plans which have been formed.

The Republic of Panama has demonstrated its sympathetic and practical interests in this enterprise with splendid liberality. The physicians of our country, and especially the members of the American Medical Association, surely will not disregard the memory of a former President, and will seize the opportunity to make in this respect a contribution of which they will be proud.

The campaign for funds is to be international. A large response is expected from North, Central and South America, since the nations of these countries have been the chief beneficiaries of the labors of General Gorgas. It is fitting that his co-workers of the American medical profession should be requested to respond generously to this appeal. It is hoped that every member of the American Medical Association will make as liberal a subscription as possible. Any sum will be gratefully

received. Checks should be drawn to the order of the "Gorgas Fund" and should be mailed to the American Medical Association, 535 North Dearborn Street, Chicago.

CHARLES W. RICHARDSON, Washington, D. C.,  
F. B. LIND, Boston.

G. E. DE SCHWEINITZ, Philadelphia.

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### Optimal Food Mixtures for Diabetic Patients

An attempt is made by Russell M. Wilder (Journal A. M. A., June 17, 1922), to analyze certain principles underlying the dietotherapy of diabetes and a method is proposed for calculating diets which will embody these principles. Such diets should, it is believed, satisfy four requirements: 1. The diets should lower the metabolic rate of the patient 15 or 20 per cent. below that of an individual of like surface area, age and sex on an unrestricted diet. Under favorable circumstances, this can be accomplished by making the food calories equal to the basal calory requirement of a fully nourished normal person of the same height, weight, age and sex as the patient, and adding an allowance of 20 or 30 per cent for work if a sedentary occupation is permitted; an extra allowance is not made for the specific dynamic action of food or for movements in bed. This procedure is called low-maintenance in contradistinction to more rigid dietary restriction termed under-nutrition. The advantage of a low-maintenance diet is that enough calories are provided to satisfy the energy requirements of the patient at his reduced metabolic level, thus avoiding continuous wastage of body tissue. It is more satisfactory to base calculation of the basal calory requirements on the four factors of age, sex, height and weight, according to Du Bois' standards for surface, rather than on weight alone, as is the general custom. The calculation is simplified by a nomographic chart published by Boothby and Sandiford. 2. The protein quota of satisfactory diets

should be restricted to the minimal value consistent with the maintenance of nitrogen equilibrium. This requirement is usually met by two-thirds gram for each kilogram of the patient's body weight. 3. In order to reduce as far as possible the sugar strain on the weakened sugar burning mechanism, the carbohydrate quota of the diet should be restricted to a minimum consistent with safety from acidosis. 4. A safe ratio must be maintained between the molecules of ketogenic material and molecules of glucose contained in the food mixture. With low protein diets, such as those proposed, providing calories equal to low maintenance requirements of the patient, the ketogenic ratio which just fails to cause a clinically significant accumulation of acetone bodies, the so-called threshold ratio, is 2:1. This implies that the oxidation of two molecules of acetoacetic acid is accomplished in the presence of one molecule of glucose. The ketogenic ratio of the food mixture should avoid this 2:1 ratio by a reasonable margin of safety.

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### Immunization Against Diphtheria

In reference to diphtheria, as has long been the case in the control of smallpox, the medical profession is demonstrating that its function is not alone the treatment of disease, but its prevention. For diphtheria can be prevented, just as smallpox is—and by the same means, vaccination. There are minor differences, but the principle of immunization is the same. Natural immunity to diphtheria is largely a matter of age; it is a children's disease, though not all adults are exempt. Protect the children, and you protect the community. This is done, in a measure, by the use of antitoxin, but not completely. Why should the child be allowed to take any chances at all? No one can foretell the virulence of a



diphtheritic attack, and in waiting for developments a case of "sore throat" may turn out to be malignant diphtheria challenging even heroic doses of antitoxin to subdue it, or ending the life of the patient through delay and temporizing treatment.

Why not prevent all this when it can be prevented by the systematic application of the toxin-antitoxin mixture known as diphtheria prophylactic? Every physician should take an interest in this subject, we believe, and extend, so far as his influence goes, the protective barricade against the spread of diphtheria.

The standardized toxin-antitoxin mixture is supplied in packages suitable for private and institutional practice by Parke, Davis & Co., who also offer appropriate literature to inquiring physicians.

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### **Neuropsychiatric Problems With Disabled Veterans**

As every one knows there has grown out of the late war thousands of disabling conditions acting to impair in greater or lesser degree the economic efficiency and independence of ex-service men. To minister to their needs there has been created by the Federal Government the United States Veterans' Bureau with its fourteen district offices, each embracing certain states of the union. The functions of the U. S. Veterans' Bureau are mainly three: First, to provide adequate medical care and treatment for the disabled ex-service man; second, to afford them, where eligible and feasible, vocational training leading to their industrial rehabilitation; and, third, to adequately compensate in money those for whom treatment has not resulted in recovery and where the disability is such that

vocational training is not feasible. As will be seen the U. S. V. B. has been given the responsibility towards the disabled ex-service man which was formerly divided between the U. S. Public Health Service, the Bureau of War Risk Insurance and the Federal Board for Vocational Education. To discharge this enormous responsibility a large organization has to be built up, each district being practically in charge of its own problems, working in decentralized manner from the Central Office in Washington. This organization includes clinics, and hospitals with their social service allies, special schools and supervision of universities and colleges wherein training is carried on. Our state comes within the territory known as the Ninth District, including Missouri, Kansas, Iowa and Nebraska. The district headquarters with Mr. M. E. Head as District Manager, are located at 6801 Delmar Boulevard, St. Louis. There are fourteen sub-district offices located at St. Louis, Kansas City, Springfield, Poplar Bluff, and Chillicothe, Missouri; Wichita, Salina and Topeka, Kansas; Des Moines, Cedar Rapids, Waterloo and Fort Dodge, Iowa. At St. Louis and Kansas City (Mo.), Colfax and Knoxville, (Iowa), are large hospitals; and at St. Louis, Kansas City, Omaha and Des Moines large out patient clinics. Any one of these branches will gladly supply information concerning the Bureau's purposes and work as will the District Manager to any interested persons.

As will be seen by the foregoing brief setting forth of the Bureau machinery, the work deals with disabilities resulting from injury or disease and is therefore fundamentally medical. It has been noted with some alarm that a large portion, fully one-third, of all disabilities are of nervous or mental type—

neuropsychiatric. The alarm and concern arises from the difficulty inherent in the handling of men with disorders of the nervous system functions. To accomplish things it is primarily essential that there be a personnel of adequately trained neuropsychiatrists and it has been brought to the editor's attention that the Bureau experiences considerable difficulty in obtaining the services of such men. From time to time there are opportunities open in the neuropsychiatric section of the Bureau for men with the proper training to work as special examiners or on a part of full time basis. The work itself is of vast interest, opening up as it does a practically untried field in the application of neuropsychiatry to the solution of industrial vocational and economic problems. Neuropsychiatrists are particularly desired at this time and any with the training are requested if interested to communicate directly with the District Manager, Mr. M. E. Head, 6801 Delmar Boulevard, St. Louis, for further information.—(Jour. Missouri State Medical Society.)

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### The Signs of Sciatica

M. Roch and E. Denzler, *Rev., med. de la Suisse Rom.*, 41:570. Geneva, Sept., 1921.

The signs of sciatica are of renewed interest since the war, because so many soldiers were exposed to the conditions which bring on sciatica, and also because it was a favorite trick of malingerers to simulate this ailment. The authors review a number of suggestive signs, naming as especially worthy of note the following: (1) Lasegue's sign: pain upon attempting to pick up an object from the floor without bending the knee: often the affected leg will be flexed at the knee or extended backward at the hip, to protect it.

(2) In the recumbent posture, the affected leg is slightly flexed at the knee, so that the heel is held a little higher than the other. (3) The Achilles tendon reflex, and those obtained by percussion of the plantar surface of the foot and of the lateral aspect of the calcaneum, and the perineofemoral reflex causing contraction of the biceps, are usually abolished or diminished. The knee jerk is usually retained. (4) Various signs indicate lowered tone of the gastrocnemius and soleus, such as a drop of the foot when the patient kneels on a box with the feet free. (5) Lower temperature of the skin of the affected side, especially noticeable on the lateral surface of the leg. (6) Occasional changes in the cerebrospinal fluid (increase in albumin without leukocytosis).

The disease is anatomically classified under five types: (1) Radiculitis, disease of the intrameningeal roots, almost always syphilitic, cerebrospinal fluid contains high albumin and leukocytes. (2) Funiculitis of the cords in the bony sacral canal, hence extrameningeal, never bilateral; slight fluid hanges; radicular distribution of the symptoms. (3) "Plexitis," the common type. Pains in buttock and thigh, leg not much affected: (4) "Trunculitis," rare usually traumatic; superior branches of the plexus not affected, peripheral distribution of symptoms; (5) Peripheral neuritis of popliteal or posterior tibial region.—International Medical and Surgical Survey, December, 1921.

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### Bacterial Irritants in Hay Fever

That pollen irritation favors the development of pyogenic bacteria in the respiratory tract and that the bacterial irritation which develops becomes a primary factor in hay fever is now gaining recognition.



Dr. William Scheppegegrell, president American Hayfever Preventive Association, has just published a book on the subject of Hayfever and Asthma in which he states:

"If the patient applies for treatment during an attack of hayfever, the pollen extracts are usually ineffective, and a vaccine should be used, these being injected at intervals of one or two days until the severity of the attack subsides."

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### Meralgia Paresthetica

(Roth's or Bernhardt's Disease): with the report of five cases; three cases occurring in the same family. (Hyman I Goldstein, Am. J. M. Sc., 162:720, Nov., 1921.)

Five cases of this condition are reported and over 130 cases, previously described, are reviewed. The chief etiologic factor has not been positively determined, but infection, strain, and persistent slight trauma have some bearing and influence on the appearance of the affected area. In diagnosis it is necessary to differentiate the lesion from neurosyphilis, neuralgia, neuritis, akinesia algera, intermittent claudication, hysteria and bone disease. The chief symptoms are tingling, pain, which is usually increased on standing or walking, numbness, a feeling of cold or damp, and occasionally exquisite tenderness. The course is variable and indefinite, and the general health is seldom affected. Treatment depends upon the cause, if that can be discovered. Rest and avoidance of any occupation which traumatizes the front and side of the thighs are advisable; excessive walking, jumping, or continued standing should be avoided.

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### Uptoward Effects of Laxatives

Lately a number of instances of cutaneous manifestations due to the use of phenolphthal-

ein as a laxative drug have been brought to the attention of physicians, particularly by dermatologists. Now Underhill and Errico have demonstrated that when magnesium sulphate, sodium sulphate and potassium and sodium tartrate are administered experimentally in doses capable of producing diarrhea, a distinct concentration of the blood may take place. The fact that purgatives exert a definite influence, in the direction of concentrating the blood, indicates that care should be exercised in the administration of purgatives in disease conditions, especially in those conditions known to be responsible for concentrated blood. Blood concentrated to some extent, and yet not sufficiently concentrated to be dangerous in itself, may reach a dangerous concentration by the added influence of the purgative. (Jour. A. M. A., June 24, 1922, p. 1964.)

—R—

### The Intravenous Use of Acacia

It is now generally accepted that acacia has a limited and uncertain usefulness. The intravenous use of acacia is a recent therapeutic procedure and apparently sufficient time has not elapsed for the thorough appraisal of its use as a therapeutic remedy. Bearing in mind the accidents from the use of acacia that have been reported, the lack of agreement as to its beneficial effects, among surgeons who have tried it, the experimental evidence that has been reported as to its deleterious effects and the paucity of data indicating its clinical usefulness, conservative practitioners will still withhold their verdict. Moreover, the questions of intravenous therapy, which are involved in any discussion on the use of acacia in shock, hemorrhage and allied conditions, are an important and serious complicating consideration. (Jour. A. M. A., June 17, 1922, p. 1897.)

"Our reason for using the vaccine during severe paroxysms is that at this time the patient is suffering, not only from the effects of the pollen protein, but also from the great increase in the pathogenic microorganisms resulting from the lowered resistance of the respiratory membranes. The use of vaccine therapy at this state is therefore logical, and has given us satisfactory results."

"We use three forms of stock vaccines, each containing 1000 millions to the subic centimeter in various proportions of the following microorganisms: B. Friedlander, M. catarrhalis, pneumococcus, Streptococcus pyogenes, Staphylococcus aureus and albus."

It will be observed that the formula employed by Dr. Scheppegegrell is for all practical purposes identical with Sherman's No. 36.

In this connection it is interesting to note that Dr. G. H. Sherman was the first physician to call attention to the role played by pathogenic microorganisms in hayfever and to utilize therapeutic immunization with bacterial vaccines in this disease, to control the complicating infection. And as Dr. Sherman says, in his book Vaccine Therapy in General Practice—"We know that pathogenic bacteria are always liable to invade accessible tissues where normal resistance has been lowered by irritants. Pneumococci, streptococci, staphylococci and other organisms are found on the mucous membrane of the nose and throat of most normal individuals and in hayfever cases these organisms are found in abundance. That these organisms are important complicating factors and are responsible for much of the irritation and most of the fever is quite apparent.

Here the immunizing influence of bacterial vaccines is of real value in the treatment of hayfever. By this means sufficient resistance

to these pyogenic organisms is developed to prevent them from becoming infective agents following the pollen irritation. The result is that the patient either goes on to complete recovery or the disease runs a modified course, the pollen irritation being the only factor left, which causes comparatively little distress."

—————R—————

### Hay Fever

The desensitization treatment of hay fever patients is now in full swing, for the annual August datings have not been canceled. However, there are procrastinators and unbelievers in this domain of experiment, as in all others. There will be plenty of hay fever this year, notwithstanding the endorsement of the pollen extract desensitization treatment (prophylactic) by Dr. Scheppegegrell, President of the American Association for the Prevention of Hay Fever (who has just written a book on the subject), and others. These patients are not altogether at the mercy of the ragweed, however, for it is possible to mitigate their condition by the application of ointments, inhalants or sprays.

The nasal mucosa is disorganized, relaxed, weeping, as a result of the pollen bombardment. It can be toned up to a material degree of resistance and independence by the use of Adrenalin (P. D. & Co.) in spray, inhalant or ointment form. When a comparatively weak solution is used in spraying, no reaction follows, and the applications may be repeated as often as desired without risk of toxic effect. Ointments and inhalants of Adrenalin are rather more convenient to use than the spray, though not so prompt in their effect. They contain Adrenalin 1:1000, and it is the gradual release of the adrenalin that prevents a too pronounced astringent effect when they are applied.



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### The Atonic Abdominal Wall

The attention of Chesney Ramage, Fairmont, W. Va. (*Journal A. M. A.*, June 17, 1922) was directed to this condition by a large number of strong, healthy coal miners who complained of all known ills and had in common an atonic abdominal wall. The symptoms, as a rule, are general abdominal discomfort, headache, discomfort after meals, constipation and abdominal pain after lying down, relieved toward morning. There is absence of anorexia, abdominal tenderness on palpation, leukocytosis, fever, anemia and impotence. Physical examination constantly revealed good general nutrition, extreme bulging of the lower half of the abdomen, and remarkably poor tone to the rectus muscles of the abdomen. This was made especially noticeable in men who were muscled like Hercules, men engaged in the most arduous toil, whose deloids were huge blocky masses, and whose backs and thighs were hard and corded. The question arose as to why this group of abdominal muscles should be so attenuated. Lack of use, and therefore lack of tone to the muscle from some intra-abdominal condition apparently was the cause. The most reasonable working hypothesis appeared to be that there was a voluntary inhibition of the abdominal musculature on account of the pain of their pull on a broken rib to which they were attached, or during the period of acute abdominal pain when their relaxation gave relief to the patient. As long as the local condition causing the relaxation existed, naturally, the inhibition to the nerves controlling these muscles would continue. Ramage has depended for a cure almost entirely on exercises tending to develop the abdominal muscles. The best exercise appeared to be to lie supine on the floor and rise to a sitting posture without the use of the hands. This was to be practiced assiduously morning and evening to the limit of the patient's endurance. The results are surprising.

—————R—————

It is more difficult to tell what does us good than to tell what hurts us. The latter is easy and that is why we keep doing it.

### Effect of Tonsillectomy on General Health in Five Thousand Children

Of 10,000 children on whom tonsillectomy has been performed under uniform conditions, 5,000 have been reexamined by Albert D. Kaiser, Rochester, N. Y. (*Journal A. M. A.*, June 17, 1922), one year after operation, and a detailed history of the child's complaints tabulated before and after operation. Analysis of the causes for operation shows that obstructive symptoms or evidences of tonsillar infection existed in 99 per cent of the cases. In 5,000 children reexamined, the greatest improvement came to the group that showed evidence before operation of obstruction and infection. Obviously, a child suffering from obstructive tonsils and adenoids with symptoms of infection should have the benefit of tonsillectomy. Considerable improvement in the child's general health was noted in the group that presented evidences of infection from the tonsil but when the tonsil presented no marked hypertrophy. Undoubtedly this group showed benefit from this operation. No marked change was found in the child's general condition in the group operated on for hypertrophy only. There was less malnutrition in this group. One year is too short a period in which to determine the benefits of the operation to this group. Taken as a group, there was a very decided improvement in the general condition of the children operated on. The nutritional status was improved in many instances. The high percentage of undernourished children one year after operation, 29 per cent, suggests that diseased tonsils are only a small factor in the production of malnutrition. The operative risk is not great, for 10,000 children were operated on without a surgical fatality, and post-operative complications occurred in only a small percentage of the children, assuring reasonable safety if proper care is taken. The ultimate effect of the operation on a child cannot be determined at the end of a year; but at that time 84 per cent of the children have been considered in better general health, as indicated by their physical examination and analysis of their complaints.



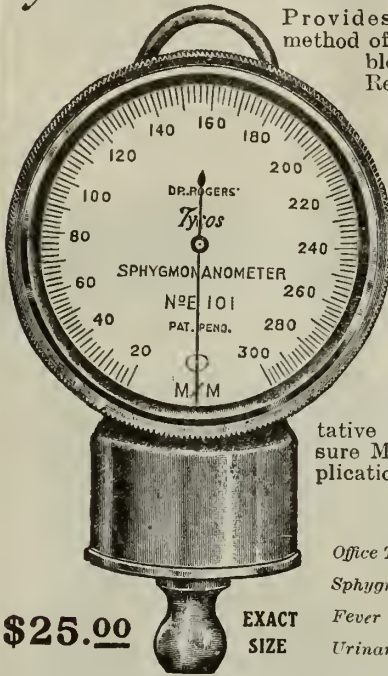
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While admitting that there are hopelessly toxic cases in which death is imminent and practically certain, when no active measure is applicable, yet with the plan he has made use of, Frank H. Lahey, Boston (*Journal A. M. A.*, June 17, 1922), believes that when a purely thyroid death occurs in a case considered within the bounds of operability, it will be the results of misjudgment and of consequent attempts to apply too advanced surgical steps as the first measure of treatment.

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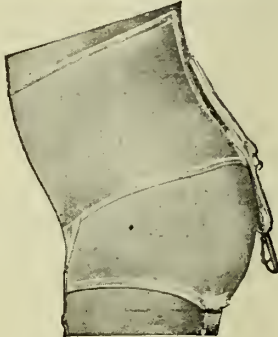
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# THE JOURNAL

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## Kansas Medical Society

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No. 10

### False Conceptions Concerning Pulmonary Tuberculosis

DR. JOHN B. CROUCH, Colorado Springs, Colo.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

It has been forty years since Koch first announced his discovery of the tubercle bacillus, yet in all these forty years, and after more study than has been devoted to any other one disease, we are still in the dark regarding practical prevention of tuberculosis, nor has any specific cure for this disease been found. Despite these facts, much progress has been made in the diagnosis and treatment, with a constant lowering of the mortality. Sanatoria have been severely criticised in that, after the expenditure of large amounts of money for the creation and maintenance of such institutions, the disease has not been eradicated. It should be borne in mind, however, that this progress in diagnosis and treatment, with the lowered mortality, has been due in a large part to sanatoria and the men they have trained. These facts alone are sufficient justification for their existence. A thorough knowledge of this trouble is not obtained in medical schools on account of lack of facilities for teaching this subject, and also for the reason that to gain a proper conception of tuberculosis one must observe the disease over a period of many years. Many of the statements which I may make are dogmatic, but time forbids elaboration.

#### DIAGNOSIS

*That tuberculosis can always be diagnosed in the "incipient" stage.* The general practitioner is often criticised that he does not diagnose tuberculosis in the so-called "incipient" stage. Fortunately we are getting away from this classification. We do not speak of "incipient" syphilis, or "incipient" typhoid; the patient has syphilis, or he has typhoid, or

he has tuberculosis. True, he may have a mild syphilis, or a mild typhoid, or a mild tuberculosis, with a small or minimum amount of trouble. The specialist, or the sanatorium physician is frequently himself unable to diagnose these so-called "incipient" cases, even after prolonged daily observation, and with all the diagnostic means at his command. It was formerly thought very proper to make these early diagnoses from slight changes in the physical findings, small areas of dullness or slight changes in the breath sounds, almost to the extent of disregarding the history and symptoms. It is much safer to pay attention to history and symptoms than to try to make early diagnoses by any finesse in physical examination. Symptoms ordinarily precede physical findings. On the other hand, the assumption that tuberculosis is diagnosed in the majority of instances as early as it should be diagnosed, is also a false conception. Unfortunately it is not so diagnosed. Many cases in which a diagnosis could easily be made drift from physician to physician, the diagnosis being delayed until it is too late.

*That pulmonary hemorrhage does not spell tuberculosis unless proven otherwise.* Frequently the patient comes to a sanatorium with the following story: That some time before entering the institution, and while apparently in good health, he had coughed up some blood; that a physician was called, who examined the patient's throat, saw some blood in the pharynx and told the patient that he was bleeding from the throat, assuring him that he had no pulmonary trouble, telling him to go about his business and forget it. Hemorrhage from the throat of any considerable amount is a rare occurrence; hemorrhage from the lungs a very common one, and during the active stage of hemorrhage from the lungs there is practically always blood to

be seen in the pharynx. Do not be misled. Pulmonary hemorrhage is of more diagnostic import in pulmonary tuberculosis than a Wassermann reaction is diagnostic of syphilis. By a pulmonary hemorrhage I do not mean merely blood tinged sputum, but pure blood of two drams or more.

*That pleurisy with effusion is not due to tuberculosis.* Pleurisy with effusion, unless proven otherwise, should be considered as due to this cause. Let us put idiopathic pleural effusion into the discard with "incipient" pulmonary tuberculosis. There is always a cause for pleural effusion, and especially in young adults of previously good health, by far the most frequent cause is tuberculosis. More than 80 per cent of primary pleurisies are undoubtedly of this origin, and the patient so afflicted should be considered as tuberculous and so informed and treated to avoid future breakdowns.

*That many cases of ischio-rectal abscess and fistula in ano are not due to tuberculosis.* Tuberculosis should always be borne in mind when this condition exists. Yet how many patients are told of this probability—very few. Still, a large number of these patients subsequently develop pulmonary lesions.

*It is certainly a misconception to think that because the sputum is negative for tubercle bacilli, the patient does not have tuberculosis.* before informing the patient that he has. Some physicians wait for a positive sputum tuberculosis. In the majority of instances the diagnosis can be made from the history, symptoms, or physical signs before a positive sputum appears. When the sputum shows tubercle bacilli there is already breaking down of tissue, with necrosis. Yet it is a daily occurrence at the sanatorium to have patients say, "He examined my sputum and told me I had no germs, and that my trouble was not due to tuberculosis." If asked how many times the sputum was examined the answer in most instances is, "Once." Many people are killed each year by one negative sputum examination. Examine the sputum repeatedly. It is not uncommon to make thirty or forty sputum examinations before the tubercle

bacilli can be found, and in many of these cases it is definitely known that the patient is profoundly tuberculous. One-fourth of all the patients admitted to the Modern Woodmen of America Sanatorium had had no sputum examination made prior to their admission. Failure to diagnose pulmonary tuberculosis from the history, symptoms, or the physical signs, from misinterpretation of the symptoms, or failure to elicit conclusive physical findings, can be condoned; but failure to have repeated examinations of sputum when cough and expectoration are present is unpardonable, especially in this day when practically every state, county and municipality maintain laboratories where this work is done for a nominal fee.

*That a diagnosis of clinical tuberculosis can be made from one of the various tuberculin tests alone.* A few years ago, we received many patients who gave us this information: "The doctor gave me a test on the arm and said that I had tuberculosis." A positive reaction to one of the various tuberculin tests is not proof of active tuberculosis; it does not distinguish a latent tuberculous infection that needs no treatment from the active, clinical, or manifest case that demands immediate attention. A tuberculin reaction is of value when taken with other findings, but a positive reaction is of little consequence when considered by itself.

*That a diagnosis can be made by the x-ray alone.* Today many patients come to Colorado whose diagnoses are made solely from the x-ray. To deny that the x-ray does not reveal pathologic changes in the lungs would be the height of folly; it does show these changes. It is a history of all the happenings that have taken place in the chest since birth, but it must be properly interpreted, and in the case with light shadows the plate must be considered with the symptoms and physical signs in order to arrive at a definite conclusion as to whether the patient demands treatment. The Roentgenologist is prone to forget that he must work in co-operation with the clinician.

*That the physical examination is usually*



*well made.* The most important point of the physical examination is often neglected, and this is the finding of moist rales occurring on inspiration after a forced expiratory cough. Next to the finding of tubercle bacilli in the sputum, these rales are the most diagnostic single factor. These rales are heard practically always before tubercle bacilli appear in the sputum. They are heard in the apices, are constant and are moderately coarse in character. If heard only in the bases, rales alone should not be considered as diagnostic of this disease, unless tubercle bacilli are present in the sputum.

*That because a patient has continued cough and hoarseness, he has tuberculosis.* Continued cough and hoarseness are probably more often caused by tuberculosis than any other one thing, but should the lungs be free from disease, other causes should be sought for. It should be borne in mind that laryngeal tuberculosis is not a primary disease, but is always secondary to trouble in the lungs.

*That the symptoms continued fever, rapid pulse, loss of weight, languor and night sweats always mean tuberculosis.* These symptoms are characteristic of other chronic infections or intoxications. We must eliminate tuberculosis should these be present, but with cough and expectoration added, the lungs are most certainly at fault.

#### TREATMENT

*That patients should not be told that they have tuberculosis.* We have made our diagnosis. What next? Shall we tell the patient? Most certainly YES. Kind friends and relatives notwithstanding. If not told at once, the patient, with a false sense of security, may do much harm to himself and to his family, feeling safe in the fact that he does not have tuberculosis. It is usually a great shock to the victim, and may for awhile almost prostrate him. He has to know it some time, however, and he had much better know it today than next week, next month, or next year. He may do badly for awhile, as the psychic effect has much to do with recovery. Explain to the patient that he has tuberculosis and he can recover, even though the road is rough,

the grades are steep, and the journey long. Show him how to protect others. Few patients without previous sanatorium training come to Colorado with sputum cups, or realize how to dispose of their sputum. They do not cover their mouths when they cough, do not use special linen or dishes, and have no idea of prophylaxis. Give the patient confidence, however. You can only tell him what to do, you cannot do it for him. Show him that the matter of recovery is as much up to him as it is to you. Make him realize that, although he may look well, he is not well; that it takes time to form scars and for these scars to become organized. This takes time and patience and tact. How much easier it would be to write a prescription, and tell him to take it to his druggist and have it filled, and that it would cure his cough. You would not have as many tears shed in your office by this latter method.

*That home treatment is as good as sanatorium treatment.* After informing the patient that he has tuberculosis, the question to decide is what to do. Shall he go to a sanatorium, or shall he stay at home? Shall he try it at home first, and if this does not succeed, later go to a sanatorium? I believe this is a big mistake. If sanatorium treatment is to be instituted, it should be instituted at once in order to obtain the best results, and there is no doubt in my mind that sanatorium treatment is, by all means, the best treatment for this disease. Many say that they cannot afford to stop work, and in many instances this is all too true, but a longer lay-off with a greater sacrifice is called for if treatment is delayed. You say your patient cannot afford to go to a sanatorium; he cannot afford to do otherwise. He may not be able to go to a private sanatorium at fifty dollars a week, but he certainly can afford to go to a state or county sanatorium. I am a great believer in public and semi-public institutions—public schools, state universities, state sanatoria; and this latter is as much an educational institution as the state university. The patient may not be able to remain long enough to become entirely cured; patients do not usually

remain this long, but they can remain long enough to learn the rules of the game, to learn how to take care of themselves, and to learn how to protect their families and the community at large. In a home it is almost impossible to carry out the regular regime, the regularity of living that obtains in a sanatorium, which is so necessary for the patient's recovery. Neither the patient himself, nor his relatives can be made to realize the importance of this, nor are the necessary facilities for carrying out this life present in the home. In a sanatorium one patient educates another, so that the new arrival falls naturally and easily into this regime. You cannot make a soldier without a training camp, and it is just as essential to train your soldier in his fight against tuberculosis as it is to train a soldier to fight any other battle. How often you hear, "But a sanatorium is such a depressing place, with all those sick people around." This comes again from those kind friends and relatives from whom patients should be delivered at any cost. Sanatoria are not depressing, in fact the atmosphere of these institutions is very cheerful. I know because I have lived in such institutions for ten years, first as a patient, and later as a member of the staff. Tuberculosis sanatoria are, I have found, very delightful places in which to live. To be sure there are some joy killers, but you can find these everywhere, even in the churches.

*That climate alone will cure tuberculosis.* Some are advised neither to go to a sanatorium nor to remain at home, but merely to change climate, with the hope that this alone will bring about their recovery. We often hear about people who have recovered in this way. They are considered as advertisements for our Colorado climate, but what really happened was that, in addition to a change in climate, these people ceased their work and changed their mode of living, which probably had more to do with their recovery than the climate. By some miracle, some patients expect to be well the minute they have crossed the line from Kansas into Colorado. "My doctor said that all I had to do was to go West and keep

away from the doctors out there." "Go West and rough it" is still the slogan with some people. To send a tuberculous patient somewhere in order that he may obtain benefit of climate without advising constant medical supervision while in that climate is like sending a ship to sea without a pilot. The patient must be warned of the unseen rocks and shoals upon which his ship may flounder. I do believe, however, that there is benefit in climate; that treatment, and especially sanatorium treatment, together with climate is ideal for the tuberculous patient. Yet many who can afford to obtain this treatment are advised not to do so. You people of Kansas have placed your state sanatorium almost as close to the Colorado line as it is possible to place it. We know some doctors deny the benefit of climate, still if they themselves or any member of their family are stricken with tuberculosis, they are usually the first to seek the benefit of climatic conditions. We, who are doing tuberculous work in Colorado, number among our practice many physicians and physicians' families.

*That fresh air alone is curative.* Patients are still advised to take camping trips, and to take trips overland in autos in order to be out in the open. On these trips they undergo great exertion. They drive their own cars, pitch their own tents and often do their own cooking, and when they arrive in Colorado, usually in an exhausted condition, they live in an auto camp surrounded by most unhygienic conditions, and without supervision. Last summer I saw two cases of tuberculous meningitis at one of the local auto camps, and I am sure this condition in both cases was brought on by the fatigue incident to the journey. One man had driven from Iowa, and later died in one of our local hospitals. The other man had driven from Arkansas, and we sent him back home where he died a short time later. It is tiresome for a man in good health to make a long auto trip, it draws upon his reserve supply of energy, but for the tuberculous patient it is exhausting, and often destroys his chance of recovery. These people should avoid hardships, fatigue and



exposure of every kind. They need more than the bare necessities of life, they should have the comforts. It is still impossible for some people to get away from the idea that to obtain fresh air, it is necessary to do something strenuous, to take some vigorous exercise, to walk, ride or play athletic games. They cannot conceive of rest in connection with fresh air.

*That a change of occupation is curative.* When tuberculosis is discovered, patients are frequently told that all that is necessary is to let down a little, that by taking partial rest they will probably recover. When tuberculosis is discovered the business in hand is to treat that tuberculosis, and forget all other business. They are also told that a change in occupation is sufficient. If a man happens to be doing clerical work, he is told to get a job on a farm. Do not tell a patient who is working in a bank to go out and work on a farm; he will only die the sooner. It is much easier for a bank clerk or a man doing clerical work in a store to do the work that he is used to doing than it is for him to work on a farm; consequently he expends less energy in making his living. Light outdoor work is merely a figment of the imagination. When a man changes his occupation, his earning power is usually lowered and therefore his standard of living falls. This idea that a patient must change his occupation holds true after sanatorium treatment has been discontinued. The patient should do the work that is easiest for him to do, and with the least expenditure of energy on his part.

*That drugs are curative.* We know that no drug has a specific action on this disease. It is well to remember that these people are neurotic and open to suggestion. In giving your medicine give a lot of suggestion with it. You do not necessarily have to tell that patient that the medicine will cure him, but let him feel that you expect some result from it. Few patients have the intelligence to realize that tuberculosis can be treated without drugs, and in fact symptoms do arise that need medication. Use drugs for symptoms, but do not give anything that may do harm.

*That rest is not of the utmost importance.* Of all things that have been used in the treatment of this disease, rest alone has stood the test of time. When tuberculosis first becomes evident, the first symptoms is often malaise, that awful tired feeling. It is nature calling upon the patient to stop and rest. If he would only heed this call when it is first heard, he would probably recover without further treatment. All patients should at first be given complete rest, and by complete rest is meant rest in bed. They will tell you that they cannot stay in bed, that they have always led active lives, and that they do not feel sick enough to remain in bed, and many of these patients really do not look ill. It is difficult to persuade a man or his relatives that if he does not feel badly and does not appear to be ill, that it is necessary for him to take absolute rest. This is generally very easy to do in a sanatorium, and most difficult at home. You must insist upon this point, however, if you are going to obtain results.

#### PROGNOSIS

*That tuberculosis is as curable as advertised.* It is not as curable as advertised. Infection with tuberculosis usually heals spontaneously, but tuberculosis giving manifest signs and symptoms is not easily cured. From much of the recent propaganda, patients obtain the idea that this disease is so curable as not even to be taken seriously. Dr. Lawrason Brown states that, "the struggle lasts, in the majority of instances, from diagnosis to death, which in at least 90 per cent of all the patients at Trudeau has been caused by tuberculosis."

Some years ago, Dr. Rutledge and myself reviewed the statistics of patients who had been discharged from the Modern Woodmen of America Sanatorium for more than five years. We found that out of 1229 cases, whose sputum was positive for tubercle bacilli, irrespective of the stage of the disease, 413, or 33.6% were living and 816, or 66.4% were dead; and of those dead only 17, or 1.4% died of causes other than tuberculosis; that is to say that in positive sputum cases 98.6% of

those who had died within five years, died of tuberculosis. One might say, therefore, of three patients who may come into your office, and whose sputum is positive for tubercle bacilli, two of these will be dead and one living at the end of five years, and this following sanatorium treatment. Let us look at these 1229 still further. Remember now I am speaking of only positive sputum cases. Of the 1229, 84, or 6.7% were classified as having "incipient" trouble, of whom 62, or 73.8% were living, and 22, or 26.2% dead at the end of five years. The chances here are not so bad. It means that three out of four, even though tubercle bacilli are found in the sputum, will be living at the end of five years with a minimum amount of trouble, but it also means that we must be guarded in our prognosis, for even among early cases a certain number are progressive, though under the best treatment. 495, or 40.3% were moderately advanced, of whom 259, or 52.3% were living, and 236, or 47.7% dead. Therefore, with moderately advanced trouble, with tubercle bacilli in the sputum, one has an even break, or a little better, to be living at the end of five years. 650, or 53% were far advanced, of whom only 92, or 14.2% were living and 558, or 85.8% were dead at the end of five years. The inference to be drawn from these figures is that the early case has five or six times the chance to recover that the advanced case has, but that the average sanatorium receives a larger number of far advanced cases than any other class. It can also be stated that every day the patient is allowed to delay treatment, we are allowing him to progress from an early to an advanced case and taking away his chance of recovery.

*That tuberculosis is cured in a few months time.* The prognosis should be guarded as to the length of time the patient should be under treatment. Many are told that, at best, a few months will put them in good shape. The physician should realize that a few months does not mean an indefinite period of time to the patient, as the doctor means it to be understood. It means to the patient exactly two months, and if he is not well at the end

of this time, the sanatorium or the consultant is usually blamed. "Why am I not well? Dr. Blank said I would be, and here I am still in bed." The patient should be told at the onset that he will not be well in a short time, in fact when the patient is first seen we can tell very little as to the length of time that treatment must be continued. It is only after observation that we can give some idea of the prognosis of a given case.

*That an arrested case is not sub-standard.* The tuberculous patient, even the far advanced case, is prone to improve while under treatment, but when vigilance is relaxed and he is lost to observation, a large percentage relapse. I believe that this is due to the teachings, which leave the idea with the patient that he is cured. Patients are told that they are cured, and they believe they are cured. That is the end of it. Cured means *cured* to them; it does not mean half well and half sick. It does not mean that they must spend half a day in bed for years, that they cannot dissipate, keep late hours, that they must never become tired but keep a certain amount of reserve strength upon which to draw, but in reality that is what it has meant and does mean to many of us if we hope to keep ahead of the game. The patient should always be considered as sub-standard. He has a certain amount of disability, just as a man who has lost a leg, or an arm, or an eye has a certain amount of disability. He is never as good a man physically as he was before he contracted tuberculosis. When the patient is so instructed and he realizes these things, a long step will be made in keeping him well after treatment. The patient who has had tuberculosis often wishes to appear as a very healthy man. These people like to brag about how well they are. Consequently when a patient tries to act as an exceedingly healthy man, he becomes exactly that which he wishes not to be, and that is a very sick man.

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Conieism is the *latest* and *newest* fad for the cure of disease. This makes about 27 different professional cure-alls in the field of medicine and pseudo medicine.



### Epidemic Encephalitis

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Read before Central Kansas Medical Society, at Ellsworth, Kansas, June 15, 1922.

During the past several years much attention has been given to, and much has been written about, a disease of an acute inflammatory nature which tends to appear in epidemic form, affects the nervous system profoundly and is responsible for an amazing amount of disability among its victims, much of which is residual. Economo, in describing an epidemic which occurred in Vienna in 1917, because of the so frequent occurrence of somnolence as one of the most striking symptoms, gave the disease the name of *encephalitis lethargica*, and because so many patients exhibited the symptom of prolonged somnolence, the Lay Press, almost universally, christened the disease, incorrectly of course, *sleeping sickness*.

Kinnier Wilson was not satisfied with the nomenclature of Economo, since, as he stated, it is the patient who is lethargic and not the encephalitis, and suggested, as a substitute, *epidemic encephalitis*. This is probably not a new disease, although it is only since 1917 that it has attracted any considerable amount of attention. Since quite early times the occurrence of prolonged and profound sleep in connection with epidemic diseases has been reported by medical writers, usually such somnolence has been associated with epidemics which were classified as influenza.

Zuelzer reported an epidemic as occurring in 1712 which was considered to be influenza. In this epidemic profound sleep was such a common symptom that in Tübingen the disease was designated as "The Sleeping Sickness." Since that time epidemics have occurred, or been reported as occurring in Northern Italy, Hungary, Bavaria and Russia. Since the epidemic in Vienna in 1917 epidemics have been reported in Paris in 1918, in London in 1918, and in the latter part of 1918 and early in 1919 the first cases were reported as appearing in America. The nature of these first cases was not recognized, and I believe at the present time a majority

of the patients are diagnosed, during the acute stage, as having influenza. In my own experience practically all of those who have come under my observation, because of neurological sequelae, report that while actually ill the attending physician made a diagnosis of influenza. While there are many problems belonging to the disease which yet await solution, some of the most important problems have been solved. It occurs in epidemic form. It is caused by a virus, the nature of which has not yet been determined, which has a special affinity for the central nervous system, and it is most conspicuously active in those structures around the aqueduct of Sylvius, attacking in a great majority of cases the ganglia at the base of the brain and the brain stem, but no part of the nervous system is immune to its activities. In a considerable number of cases the cerebral and cerebello-cortex are both hosts to and suffer from the activity of the virus as are also the spinal cord, the peripheral cerebro spinal nerves, and the sympathetic nervous system.

During the acute stage, and subsequently, asthenia and disturbance of muscle tone are almost universally present. Sleep disorders are constant. These may be divided into—

First: Somnolence, more or less prolonged.

Second: Insomnia.

Third: Displacement of the hours of sleep with a normal amount of sleep preserved, patient being somnolent during the day and wakeful at night.

Recovery from the disease is usually slow, and sequelae, many of them of a very serious nature and extremely disabling in character, are observed in a large percentage of the cases. These sequelae being referable chiefly to the nervous system. Ocular symptoms, indicative of ocular palsies, are almost constantly present, excepting in those cases affecting the spinal cord, and the peripheral nerves of the spinal system.

The disease usually affects young adults, although no age is entirely immune. The sexes are about equally divided with a slight preponderance of cases occurring in the male.

It is an infectious disease and is generally

regarded as being communicable, and has been made notifiable in England and Wales.

C. Kling and F. Liljenquist studied an epidemic in Sweden, and concluded that the disease is contagious with an incubation period of ten days. Much speculation, but little that is demonstrable fact, has been offered concerning the nature of the virus. It has not been successfully isolated and animal experimentation has thus far proven somewhat disappointing.

C. Kling and H. David believe that they demonstrated the virus in the spinal fluid of a woman ill with the disease and made injections intracerebrally in five rabbits. In two they succeeded in producing what they determined to be encephalitis. Von Wiesner, in 1917, from one of Economo's cases isolated a gram positive diplostreptococcus. He successfully cultivated this virus and injected the culture in a macacus rhesus, producing somnolence with muscular weakness. The injection of a culture into the peritoneal cavity of guinea pigs caused death from internal hemorrhage.

A filtrate obtained by filtering the original brain cord emulsion of the patient through a Berkfeldt filter and injected into a macacus rhesus produced no symptoms.

The injection of an unfiltered emulsion of the brain and spinal cord into the subdural cavity of the same species caused death in forty-six hours. The symptoms presented were—profound stupor, with paresis of the right hind leg.

McIntosh injected emulsions of the basal ganglia, pons, medulla and cervical cord intracerebrally and intraperitoneally in macacus rhesus but produced no results. Cultures from the brain and spinal cord, and those taken from the excreta of the naso-pharynx and from the feces were sterile.

There has been much discussion relative to the relation between epidemic encephalitis and anterior poliomyelitis. Some investigators, notably F. G. Cruickshank, are of the opinion that these two diseases are of, or have, the same etiology, the only difference being as

to their distribution in the central nervous system.

L. Amoss, of the Rockefeller Institute, does not agree with this opinion. He has pointed out that the serum from convalescent patients suffering from the two diseases behaves differently. The convalescent poliomyelitis serum neutralizes the virus of the disease and protects monkeys inoculated with the virus. No such protection is obtained by the injection of convalescent encephalitis serum. He concludes that epidemic encephalitis is an epidemic disease, the main manifestations of which relate to injury inflicted upon the central nervous system, particularly the basal ganglia of the brain. Poliomyelitis is an epidemic disease the main manifestations of which relate to injury inflicted upon the central nervous system, and in particular the gray matter of the spinal cord and medulla oblongata. This problem still awaits solution. It is my opinion, despite the fact that no strictly histological differential points exist between them, that they are two separate and distinct diseases. The clinical symptoms are widely variant. The sequelae are most strikingly dissimilar, and while poliomyelitis is a disease of early childhood, epidemic encephalitis is a disease of early adult life.

At one time it was believed, quite generally, that there was some connection, or relation, between epidemic encephalitis and influenza or the "flu." At the present time the opinion is prevalent that there is no relation between these two diseases, although, as stated above, many cases of epidemic encephalitis are being diagnosed as influenza, chiefly, I believe, because of the fact that the primary symptoms are those of an acute infection, elevation of temperature, quite frequent evidence of irritation of the respiratory organs, disturbances of sleep, restlessness, and disagreeable sensations usually painful in character.

The onset of epidemic encephalitis usually occurs without prodromal symptoms. In a small per cent of the cases there is a short prodromal period during which appear the symptoms of general malaise, asthenia, slight



chilliness and a rise in temperature, usually of but a few days' duration.

Lethargy or profound somnolence, approaching stupor, is one of, if not the most common, clinical symptom. This lethargy is not a true stupor or coma. The patients sleep soundly, and are not disturbed by ordinary stimuli, but can be aroused by more active stimulation, and then appear to be fairly well oriented with little or no clouding of consciousness. This state lasts for a very short period of time, and as soon as effort to keep patient awake is discontinued he quickly falls asleep again. The intensity of the sleep varies in degrees. In some cases there is profound somnolence—in others apparently but a slight drowsiness.

Cranial nerve palsies occur in a large percentage of cases. The nerves most frequently affected are—the oculomotor, facial or seventh cranial. In many cases there is a combined paralysis of the oculomotor and seventh cranial, but any of the cranial nerves may be affected, either singly or in combination with their fellows. There is usually some degree of pyrexia, but this is not a constant symptom. Cases have been reported as running the entire course without any elevation of temperature, and usually, if there be an elevation of temperature, it is of short duration, and rarely goes above 102° Fahrenheit. In some types, most notably the acute psychotic and epileptomaniacal the temperature may range as high as 106° or 107°, and continue high for a considerable period of time.

Tremor is a very common symptom of the disease. Asthenia occurs in a high percentage of cases, and frequently continues over a long period of time. Lethargy or somnolence may be replaced by extreme restlessness. Cataplexy with muscular hypertonus may be a symptom.

Spinal fluid shows no typical pathology. In those cases in which there is considerable meningeal irritation the cell count may be decidedly increased, but pleocytosis is not a common symptom. The globulin content is increased in a considerable number of cases. There is usually a slightly increased fluid

pressure. The blood usually shows a slight leucocytosis. The duration of the disease varies. Usually the acute stage lasts from one to eight weeks.

H. Holthusen and R. Hopman had under observation sixty-two cases in an epidemic in Heidelberg and vicinity, in the early part of 1920. Only a few of these patients had made a complete recovery within a year and the great majority of them showed sequelae. In some cases these sequelae were mild and unimportant, such as inequality and sluggish light reaction of the pupils, nystagmus, impaired conversion.

They stated that a common complaint was loss of energy and initiative, patient having no ability for enjoyment. These patients were slow in performing any task. They ate slowly, talked slowly, and were usually drowsy. In some cases the inhibition was psychic, in others there was disorder of the motor mechanism.

In considering the prognosis of this disease, and giving an opinion to the anxious relatives, we must recognize the fact that it is a very serious disease as regards life, the percentage of fatalities being large, and that it is also a serious disease as to completeness of restitution. It is a difficult matter to determine accurately the mortality rate. Tilney and Howe report on 113 cases, some their own, and others reported in the literature in which the condition or termination was given as follows:

Fatal, 30.9 per cent.

Recovered, 25.6 per cent.

Improved, 32.7 per cent.

Stationary 10.6 per cent.

In studying the various types of epidemic encephalitis we have for our consideration an anatomical classification, and a clinical classification.

The anatomical group is as follows:

First: Cases with general symptoms indicating involvement of the nervous system but absent, scant or fleeting localizing signs.

Second: Meningitic type.

Third: Cortical type.

Fourth: Pyramidal system type.

Fifth: Thalamic type.

Sixth: Corpus Striatum type.

Seventh: Brain stem type.

Eighth: Cerebellar type.

Ninth: Spinal type.

Tenth: Peripheral nerve type.

Eleventh: Multiple diffuse lesions type.

I shall briefly analyze the various anatomical types:

First—*Cases With General Symptoms*. In the early stages there are signs of cerebral irritation, restlessness, delirium and occasionally hallucinations and delusions. As the disease progresses lethargy, stupor and general muscular rigidity appear.

Second—*The Meningitic Type*. This type is characterized by the following symptoms of meningeal irritation, fever, headache, stiffness of the neck and a slight Kernig sign.

Third—*Cortical Type*. The predominating symptoms of this type are isolated monoplegias, aphasias, hemiplegia.

Fourth—*Pyramidal System Type*. In this type the first symptom may be a sudden hemiplegia with later symptoms of cranial nerve paralysis.

Fifth—*Thalamic Type*. The typical thalamic syndrome rarely occurs in this type, the principal symptoms being ataxia and choreo-athetoid movements with involvement of the internal capsule and other adjacent structures.

Sixth—*Corpus Striatum Type*. Anatomically the corpus striatum is divided into the globus pallidus, the caudate nucleus and putamen. The principal functions of the corpus striatum are:

First—Regulation of muscle tone.

Second—Maintenance of muscular repose.

Third—Regulation of associated and automatic movements.

Fourth—Control over emotional expression and facial motor function.

The virus of epidemic encephalitis seems to have a preference for the globus pallidus over the other parts of the corpus striatum.

Lesions of the globus pallidus give a more or less Parkinsonian syndrome, with general muscular rigidity, irregular cogwheel release on passive movement, tremor, mask-like expressionless facies, bowed rigid attitudes and

festinating gait.

Seventh—*Brain Stem Type*. Involvement of various cranial nerves is a prominent symptom of this type.

Eighth—*Cerebellar Type*. Such cases are rare, cerebellar ataxia the principal symptom.

Ninth—*Spinal Type*. In this type may be observed either anterior or posterior poliomyelitis. In three cases which I have observed there was an ascending myelitis.

Tenth—*Peripheral Nerve Type*. Such cases are rare but do occur as lesions of one or more peripheral nerves of the spinal system. The lesion may be limited to one nerve or group of nerves, or may be general in its manifestation.

Eleventh—*Multiple Diffuse Lesion Type*. In this type the lesions may be scattered indiscriminately throughout the central nervous system giving localizing symptoms similar to a disseminated sclerosis.

As mentioned above there is also a clinical classification grouped as follows.

First: Lethargic type.

Second: Cataleptic type.

Third: Hemiplegic type.

Fourth: Paralysis agitans type.

Fifth: Polioencephalitic type.

Sixth: Choreiform type.

Seventh: Myoclonic type.

Eighth: Multifiform type.

Ninth: Meningitic type.

Tenth: Acute anterior poliomyelitic type.

Eleventh: Epilepto-maniacal type.

Twelfth: Sympathetic type.

Thirteenth: Abortive type.

I shall report briefly the following cases illustrative of the various clinical types:

*The Lethargic Type*: I have seen many cases of this type and have several under observation at the present time. One case will suffice for our purpose:

Mrs. "A", fifty years of age, widow, in November, 1921, complained in the evening of headache, and aching in the limbs. The following morning she was somnolent, some stiffness of the neck, with slight Kernig. She could be aroused for a short period of time but soon fell asleep again. Would attempt to



open the eyes when requested to do so and made some effort to answer questions. When fully aroused was able to converse with a fair degree of rationality. She seemed to be very tired and wanted to sleep. Could be aroused to take nourishment but had incontinence of urine and feces. This condition continued for a period of about four weeks, when she slowly emerged from her somnolence. In the early days of her illness temperature ranged as high as 102. Blood showed leucocytosis up to 15,000, spinal fluid showed an increased pressure but no other abnormalities. At the present time, seven months after acute onset, she is very slowly convalescing, is weak, no endurance, much slowed up both mentally and physically. Had diplopia which has now disappeared but no other focal symptoms.

*Hemiplegic Type:* J. H. male, 35 years of age, without premonitory symptoms suddenly developed a left hemiplegia which within twenty-four hours showed evidence of abating. On the second day of his illness he developed symptoms of polioencephalitis of speech and much difficulty of respiration. Three days later died of respiratory paralysis. At autopsy an intense softening of the pons and medulla was found.

*The Paralysis Agitans Type:* At this time I have 12 cases of this type under observation and treatment. One a boy, sixteen years of age, had a mild attack of acute illness in February, 1920. In December, 1920, there developed symptoms of muscular rigidity, mask-face, stooped attitude, slowness of speech and movement. He came under my observation December 1921, and has made some improvement.

F. F. male, age 29, had an attack of acute illness in January, 1919, was somnolent for several weeks with slight elevation of temperature and diplopia. Six months later developed a true Parkinsonian syndrome. Still has a weakness of the internal rectus muscle of the right eye. He is not improving.

S. S. female, age 32, had acute illness called the influenza in February, 1920, was very somnolent for a period of six months had

double vision, developed Parkinsonian syndrome with mask face, muscular rigidity, emotional paralysis, stooped attitude and tremor of the left hand, slowness of movement and speech. Has been under my observation for ten weeks and is steadily improving.

K. G. male, age 28, had an acute illness in January, 1920, was somnolent for a period of three weeks. After the passage of the acute stage was weak, fatigued easily, nervous and restless. One year later developed a true Parkinsonian syndrome. Has been under observation and treatment for a period of four months and is slowly improving.

J. G. male, age 36, December, 1920, was suddenly taken with an attack of insomnia, could not sleep for period of three days, felt drowsy during daytime. Third day developed somolence, disappeared within a period of twenty-four hours. This was followed by an attack of acute illness, diagnosed as influenza, had headache, backache, cough, expectoration, with temperature of 102. Confined to bed for a period of three days. Following this attack patient got up and had extreme muscular weakness and fatigueability, unable to work. In May, 1921, patient had not improved and there was a gradual onset of a true Parkinsonian syndrome to an extreme degree. Patient has been under my observation for several months without improvement. At this time there is extreme weakness, emotional paralysis, mask face, an exaggerated stooped attitude, muscle rigidity, slowness of speech, slowness of all movements, drooling of saliva, is mentally clear but depressed.

All of these cases show some symptoms of tremor but none of them have the pill rolling tremor so characteristic of a Parkinson's disease.

*The Polioencephalitic Type:* J. W. female, 13 years of age, without premonitory symptoms complained of weakness, pains in back and legs, about Sunday noon in January, 1922.

A physician was called Monday, found her rather nervous and restless without elevation of temperature, nothing to indicate that she

was seriously ill. Saw her again Tuesday noon, this time she was somewhat more generally nervous, restless, pulse was rapid but still no elevation of temperature. I saw her Tuesday evening about 7 p. m. She was clear mentally, quite nervous, could use arms and legs but awkwardly, there was some difficulty in swallowing, also of speech. Tendon reflexes were slightly plus, a little stiffness of the muscles of the neck. Eyes were bright, widely open and she was mentally alert. Temperature 100.2°, pulse 140, respiration 50, blood pressure 150 systolic and 70 diastolic. A diagnosis of polioencephalitis was made, and an unfavorable prognosis given. The child died at 5 a. m. Wednesday morning.

F. F. male, age 30, about the middle of February 1922, after some weeks of having been feeling weak and depressed, suddenly developed an attack of somnolence, remained in this state for a period of several hours, continued drowsy. A few days later had another attack of somnolence. After this second attack developed speech disorder in the nature of a stutter. When examined he had some vertigo, a slight Rhomberg, some weakness and numbness of the left leg, foot, arm and hand, stuttered to an extreme degree and had difficulty in expressing his thoughts. Diagnosis: Polioencephalitis, low form. He is under treatment and improving.

*Myoclonic Type:* I have under treatment an interesting case of this type.

Mrs. J. C., widow, age 59, gave a history of having had an attack of acute illness in January 1922, lasting approximately ten days, during which time she had slight elevation of temperature, was very nervous and restless during the first few days of her illness, then was somnolent for a period of four weeks.

She consulted me in April, 1922. Her complaints at that time were—spasms of the tongue and throat, very weak and generally nervous, tired easily, and had much difficulty in talking because of the clonic spasms of the tongue.

Upon examination found no objective symptoms, excepting as related to the tongue.

There was rythmical contractions of the muscles of the tongue, averaging about ten per minute. These contractions were violent in character, the tongue forcibly striking the soft palate and roof of the mouth with such violence that the impact could be heard for a distance of thirty feet. The patient was very much worried and depressed because of this condition. While under treatment, about the middle of May, 1922, she developed a clonic spasm of the diaphragm of such a degree as to interfere rather seriously with her respiration. She is under treatment at the present time. The clonic spasms of the tongue have entirely disappeared—those of the diaphragm are better. She is much less nervous than formerly, not so weak and has more endurance. It is my opinion she is going to make a good recovery.

Diagnosis: Myoclonic Form of Epidemic Encephalitis Lesion of lower end of brain stem.

*The Peripheral Nerve Type:* I have under treatment at the present time one very interesting case of this type.

A boy, 18 years of age, gave history of having had an attack of acute illness in November, 1921, had slight elevation of temperature, diarrhea and prostration, was somnolent and very weak and was diagnosed as having influenza.

In the early part of December 1921 he observed numbness in both feet and hands. This condition gradually increased. His legs became so weak he could not walk, and his hands so that he could not feed himself. Early in January, 1922, he and his friends observed that the muscles of the hands, arms, legs and feet were wasting. This was later followed by contracture of the flexor muscles at the knee.

He came under my observation March 13th, 1922. At that time he had extreme atrophy of all of the muscles of the extremities and trunk. He had bilateral wrist drop, unable to use his hands. His legs were extremely contracted on the thigh. He was having some difficulty swallowing, mentally clear, talked distinctly but his voice was husky.



Diagnosis: Peripheral nerve type of epidemic encephalities.

Under treatment there has been steady improvement in his condition.

Treatment: The treatment in epidemic encephalitis is divided into two parts—that of the acute illness and that of the sequelae. There being no specific treatment for the acute illness the condition may be treated generally as an acute infection. Convalescent serum has been used with unsatisfactory results. Urotropin, given in doses of 30 grains, daily, is, I believe, of some benefit. I use alkalis in rather large dosage. Ten grains of sodium bicarb every hour, with a full glass of water to twelve doses per day, and usually combine two grains of aspirin with each dose. The nourishment is an important factor and in delirious and somnolent cases should be liquid. Hypnotics may be used in cases of extreme nervousness, delirium, or if patient is troubled with insomnia. Luminal, one and one-half grains, once or twice daily. Medinal, in five to fifteen grain dosage given at night. Somnos, paraldehyde are all helpful. If the patient is very restless small doses of bromides may be combined with hypnotics.

Disturbing, distressing or alarming symptoms must be treated symptomatically. The most distressing sequelae are—general nervousness, insomnia, asthenia, double vision, muscular paraylses, atrophy, headaches, mental depression, neuralgias of many forms, and the symptoms of Parkinsonian syndrome. These all must be treated in a more or less general way.

The administration of small doses of iodides together with syrup of iodide of iron are beneficial in many cases. General tonics and nux vomica may be helpful in any or all of the various conditions mentioned above.

In the Parkinsonian type I have used quite successfully daily hypodermic or intravenous injections of sodium cacodylate, three to five grains, over a period of from four to eight weeks. For this condition I also use a prescription, each dose of which contains—one one-hundred fiftieth of a grain of hyoscin,

one-fourth grain codeine, five grains aspirin. This dosage to be given one to three times daily according to the discomfort the patient is experiencing and the reaction of the patient to the hyoscin. In some cases one dose daily is all the patient can successfully take because of dilatation of pupils and dryness of the mouth which so frequently follow the administration of this drug.

Luminal, in this condition is also beneficial as it counteracts, to some degree, the muscular rigidity. Another one of its beneficial effects is the induction of sleep in many cases in which insomnia is a most disagreeable symptom. Usually given in one and one-half grains at retiring time. In this condition, as in all others, it is very necessary before luminal is given to ascertain the condition of the kidneys as it should never be given in those cases in which there is suspicion of nephritis. It being phenol-barbital it irritates the kidneys and may intensify the nephritis. The same warning applies to arsenic in large and repeated dosage.

The treatment of muscular paralysis and atrophy, secondary to the peripheral nerve type is the treatment of any other condition of this character—tonics, massage and electrical stimulation of the muscles.

Myoclonia is treated in a general way, and again I have found luminal very effective in controlling the clonic spasms.

#### SUMMARY

Epidemic encephalitis is, I believe, a very prevalent disease. It is, in a considerable percent of the cases, undiagnosed in the acute stage. The prognosis as to complete recovery is unfortunately not at all good. Sequelae of a very distressing and disabling character are of common occurrence. The treatment is generally symptomatic, no treatment of a specific nature has yet been discovered. Lumbar puncture and withdrawal of cerebro spinal fluid is indicated in many cases of epidemic encephalitis, especially in those conditions of extreme somnolence bordering on stupor. In such cases a thorough drainage of the canal is oft times of considerable benefit.

## The Endocrines in Pregnancy.

W. E. STONE, M.D., Florence.

Read before the Marion County Medical Society,  
August 9, 1922.

The recent literature on endocrine function and therapy has been rather voluminous and at times conflicting. After reading from one source that the placental secretions are highly toxic and in another that they are non-toxic, or after being taught that the preservation of the corpus luteum is essential to the continuance of pregnancy and then being authoritatively informed that pregnancy can continue undisturbed after complete castration provided it is not performed too early in the pregnancy, one has an urgent desire to become an endocrine agnostic. This pessimistic attitude was once well expressed by Dr. W. S. Halstead of Johns Hopkins when he said "It must be evident to every one that there reigns the greatest confusion on the subject of the functions of the glands of internal secretion."

This attitude at present, however, is unwarranted. Glandular therapy is proving of value in an ever increasing list of human disorders. Much progress has been made in the solution of the endocrine puzzles. Clinical observations and tests have produced as much valuable information as the laboratory. The general practitioner, without extensive laboratory equipment, has here an opportunity to contribute a new fact or theory to the general fund of information.

The most frequent opportunity afforded us to observe endocrine disorders is in the routine care of the pregnant. The object of this paper is to note in the recent literature on this subject, such articles as relate to pregnancy with special reference to the treatment of the toxemias of pregnancy.

Bandler says that the first truth to be recognized in the study of the endocrines is that an upset in any one gland has effect on the whole cycle, causing over activity, or under activity of one or more, or of all. That we may better understand the possible relations and changes in pregnancy, let us briefly outline the outstanding properties of each gland separately in the non-pregnant.

1. The *pineal* gland, (attached to the optic thalami and lying in the third ventricle), has the normal function of inhibiting development of sex glands before the age of seven years. In this it is assisted by the thymus and opposed by the anterior pituitary. If the pineal body is under-active or destroyed by tumor, there results early puberty, physical precocity and a drowsy mental state. It ceases function during puberty.

2. The *thymus* also involutes at puberty. It affects calcium and phosphorus metabolism binds acids, governs the lymphatics and spleen, and inhibits early development of ovaries. If it under-functions, there results loss of calcium, arrested growth, or Mongolian idiocy. If it atrophies before the ovaries develop there results systemic poisoning and chlorosis. If it functions too long past puberty we find hyperplastic ovaries and a predisposition toward exophthalmic goitre.

3. The *para-thyroids* govern absorption and excretion of mineral salts. With the pancreas they retard metabolism. If they under-function we get decreased sugar assimilation, atrophic changes of the skin and hair with, possibly, eczema and paralysis agitans. If they are removed tetany results. Osteomalacia may result from either hypo or hyper-function. They have a regulatory effect on the thyroid and in turn are regulated by the thyroid.

4. The *thyroid* promotes skeletal growth and sex development. It is closely related and interdependent with the ovaries and the uterus. It is most active at puberty and regresses at the climacterium. In old age it is atrophic. It limits secretory function of the pancreas and accelerates metabolism along with the adrenals and the posterior pituitary. It reduces constitutional obesity, but not that due to over feeding. If it underfunctions in early life we find arrested growth and retarded ossification, infantilism and cretinism; in later life, mental depression, myxedema, slow pulse, subnormal temperature, asthma, atrophic changes in the skin and decrease of ovarian function and an enlarged anterior pituitary. Exophthalmic goitre, or thyroid



hyper function (and possibly dys-functional) is characterized by rapid pulse, tremors, a feeling of heat, accelerated metabolism and the whole list of symptoms included in Graves disease.

5. The *adrenals*, consisting of medullary and cortical substance, are more of a mystery. They are known to govern pigmentation and have a regulatory effect on the circulatory system. In anger, excitement and fear they contract the vessels of the skin and viscera but allow greater circulation to the heart and muscles, thereby preparing the body for physical exertion. More recently the adrenal secretion has been thought to combine with the hemoglobin, assisting in the interchange of gases. Decreased function, as in Addison's disease, arrests growth, decreases glycogen formation in the liver, produces bronze pigmentation of the skin, lowers blood pressure and causes death. Over-function excites the thyroid, causing increased metabolism, precocious development, high blood pressure and rapid pulse. The adrenals are synergistic with the pituitary and closely associated with the pancreas and thyroid.

6. The *pituitary* is a double gland with diverse functions. (a) The anterior or glandular part is concerned with growth and sexual development, and with immunity to infection. If it under-functions we find a dwarf with under developed bones, or possibly a pituitary cretin. If it over-functions, giantism results. If over-function continues after complete ossification, the bones develop irregularly causing acromegaly. The anterior pituitary and ovary are inter-dependent. For instance, acromegaly is treated by supplying anterior pituitary extract and ovarian extract. (b) The posterior pituitary or infundibulum is closely related to the renal and vascular systems and the thyroid, adrenal and mammary glands. From it our obstetrical pituitrin is derived. It is concerned with sugar metabolism. Hypofunction causes high sugar tolerance, obesity, *adiposita dolorosa*. Hyper-function causes glycosuria by lowering the sugar tolerance. In this it is synergistic with the adrenals and thyroid. It also causes

hyper-irritability of the uterine musculature. In this it is opposed by the corpus luteum of pregnancy and the placenta.

7. The *pancreas* is chiefly involved in the processes of digestion. It has a role in liver function and in this is closely related to the posterior pituitary, adrenals and thyroid.

8. The *ovary* in the non pregnant has three secretory elements, namely (a) interstitial cells, (b) ovarian follicles, (c) false corpus luteum of menstruation. In pregnancy there is added to this a fourth secretion (d), true corpus luteum.

Interstitial ovarian cells have control of the secondary sex development and mental characteristics and exert a control over the vagus system. At the climacterium, interstitial hypo-function is evidenced by circulatory changes such as hot flushes and cardiac irregularities. Interstitial secretion plays a governing role in preparing the follicles for ovulation and the uterine mucosa for menstruation. In this it is assisted by follicular secretion and after ovulation by the false corpus luteum. Before puberty ovarian development and function, as previously noted, is inhibited by the pineal body and the thymus. It's development is dependent chiefly upon normal anterior pituitary and thyroid function.

In summary, it may be said that each internal gland has one or more important roles in life's drama, in normal development and function and that each, when supplying deficient, excessive or altered secretion, may play the part of chief villain, assisted and opposed in varying degree by others of the cast.

With this sketchy, but necessarily long preface on nonpregnant endocrine function, let us turn to the consideration of pregnancy. First, what changes occur in pregnancy? The parathyroids show hyperemic congestion and increased activity. Hypo-functioning parathyroids in pregnancy cause the so-called "Tetany of Maternity."

The *thyroid* shows appreciable increase in size and activity. Pregnancy has a very unfavorable effect on exophthalmic goitre.

The *adrenal cortex* becomes enlarged and

histologic changes occur as evidence of secretory alteration.

The *anterior pituitary* shows general increase in size and a multiplication of large neutrophilic elements and only partly involutes after termination of pregnancy. An evidence of this increased function is the occasionally noticed tendency to increase in stature or acromegaly in pregnant women.

The *posterior pituitary* (the carbohydrate regulating portion) also hypertrophies and tries to increase in function. When it over functions we get the transient glycosurias of pregnancy, and if not inhibited, the premature delivery of the fetus.

The pancreas and liver may show appreciable enlargement. Mammary glands develop markedly and in the ovary there develops the true corpus luteum of pregnancy.

But why all this endocrine activity? Because in the uterus there has appeared a new member, endowed with endocrine powers, the trophoblast and later the placenta. This has marked powers of invading and attaching to uterine mucosa or that of the tube.

It is an undisputed fact that normal growth, function, and well being are dependent upon a fairly stabilized balance of the various inter-related endocrines. In view of the aforementioned anatomical and functional changes of the endocrines and the appearance of a new organ in the placenta and fetus, is it hard to conceive that many cases should experience a more or less marked condition of unbalanced endocrine function and that this condition should in itself be the cause of toxic conditions of varying degree and form?

Does the placenta secrete toxins that produce the toxemias and eclampsia of pregnancy? Upon this one question hinges our conception of the toxemias. This has long been an unsettled question. We know that in eclampsia delivery of the placenta frequently stops convulsions immediately. But I recently had a case in which convulsions and coma lasted thirty-six hours after delivery and in which, furthermore, all signs of eclampsia, including high blood pressure, albuminuria and one convulsion recurred at the

next menstrual period, thirty-one days after delivery. That could not have been caused by the placental toxins.

Although lipoids extracted from human placenta are known to be toxic to animals, Zweifel, in collaboration with Lichtenstein, both in Austria, have shown that there is no anaphylactic hypersensitiveness to fetal or placental albumin in animals of the same species. Zweifel considers the theory of eclampsia as an anaphylactic reaction to autogenous fetal or placental albumin as definitely disproved.

McIlroy, in the *British Medical Journal*, January, 1922, scrupulously ignoring endocrine relation, arrives at the conclusion that the placenta is the main source of the toxins of pregnancy because syncytial cells from the chorionic villi are found in the maternal circulation after the sixth week, in all cases of pregnancy. He claims these should be destroyed by antibodies and that when they are not destroyed they form emboli, lodge in the liver and kidney and produce, in that manner, toxemia and eclampsia. But is this theory supported by fact? Duncan and Harding in Canada report same.

Titus and Givens of Pittsburg, *Journal A. M. A.*, Jan. 14, 1922, in a series of 144 cases, found that supplying glucose by the intravenous route not only produced immediate clinical improvement in individual cases and lowered the mortality rate in eclampsia, but demonstrated that in fatal cases the liver lobules, which are typically necrotic in eclampsia, had been restored to a remarkable degree by increase of the glycogen content. They deduct that liver changes in eclampsia are the result of carbohydrate deficiency and diminished glycogen content of the liver.

What are the findings in the toxemias of pregnancy? Is not the marked acidosis the earliest finding. In acidosis a deficiency of carbohydrates is concerned. If this condition progresses until the glycogen content of the liver is exhausted beyond the safety line, then we find degenerative changes in the liver, secondary degenerative changes in the kidney, increased blood pressure, and then the convulsions or coma. In the early nausea



of pregnancy we invariably find a relative acidosis. The cause of this is most probably decreased ability of the system to assimilate or tolerate sugars. I wish to suggest as the causative factor of this disturbed sugar metabolism, two of the internal glands, namely the parathyroids and the posterior pituitary.

Hypo or under function of the parathyroids causes decreased assimilability of sugar. Hyper—or over function of the posterior pituitary causes low sugar tolerance.

Massaglia, *American Journal of Physiology*, Mar., 1921, showed experimentally that parathyroid hypo-function, especially in pregnancy, produces autointoxication which injures the kidneys and liver and produces a tetanic syndrome similar to eclampsia. Furthermore, several autopsies of eclamptic women showed either a lack of parathyroids or severe lesions in the parathyroids. He suggested parathyroid treatment for eclampsia.

On the other hand, over active posterior pituitary gland may cause diabetes insipidus and has been blamed for the frequent transient glycosurias found in pregnant women, because of the sugar wasting and low sugar tolerance which it induces.

We have in the chorionic villi of the placenta, cells with marked power of invading the tissues of the mother. How are they held in check? How is chorioepithelioma prevented at every pregnancy. Is it not by antagonistic and restraining influences exerted by certain of the other endocrines. We have said that normal endocrine function is dependent upon suitable balance in function between the various synergistic and antagonistic glands of internal secretion. We have evidence that in pregnancy the advent of a new secretion, the corpus luteum, and a new organ or gland, the placenta necessitates a readjustment of this endocrine balance and perhaps a new readjustment of the endocrine synergy or antagonism.

Just what is the nature of this re-alignment? We have evidence that in early pregnancy, or we will say for the sake of clarity, before the placenta is sufficiently developed

to take care of itself and preserve its attachment to the uterine wall, it is protected by the corpus luteum. We have no evidence that the placenta is in synergism with any other endocrine. We know that the posterior pituitary supplies a strong ecobolic secretion and that it is decidedly active during pregnancy and that this activity is probably antagonistic. Bandler states that the body is protected from placental secretions by the ovary, corpus luteum, thyroid, adrenals, pituitary, liver and other structures in the body not yet recognized as taking part in this protective function. But Massaglia has very definitely indicated that the para-thyroids occupy a very important position among Bandler's "other structures not yet recognized."

An analysis of available data would indicate that in pregnancy the (1) placenta is in synergism with the corpus luteum; (2) that it excites a controlling and somewhat antagonistic reaction among most of the other glands of internal secretion; (3) that the toxemias and eclampsia of pregnancy are phenomena of unbalanced endocrine activity excited by the presence of the placenta; (4) that this unbalance consists chiefly of deficient carbohydrate metabolism in the nature of both decreased sugar tolerance and decreased sugar metabolism; (5) and that this unbalance is due chiefly to depression or hypofunction or we may say, decompensation of the parathyroids and excitation or hyperfunction of the posterior pituitary gland.

In the treatment of toxemias of pregnancy therefore let me suggest that our aim be to correct the hypo-function of the parathyroid by the administration of parathyroidin. Thyroid extract has long been used without remarkable results. It is possible that any good resulting from its use may have come from a secondary stimulation which it may have caused in the parathyroids. Hyper-function of the posterior pituitary also needs correction. It is thought that corpus luteum has this effect. Very satisfactory results have been noticed after its use in early toxemias. Bandler also suggests the use of placental extract, for inhibition of the posterior pituitary,

but whether this is efficient or not is an undecided question.

The other standard treatment of early toxemia or pernicious vomiting, namely, the use of alkalis and glucose is of value in that it corrects the acidosis and glycogen deficiency resulting from the endocrine dys-function. Glucose has given good clinical results, whether given by proctoclysis, duodenal instillation, or intravenous injection. Titus and Givens, when giving it intravenously noticed marked aberrations from the normal in the rate in which it was assimilated or excreted. Parathyroid and posterior pituitary dysfunction could be the predominating factor in these aberrations. Rest in bed and active alkaline therapy during a preliminary fast of one to four days, before the use of glucose gives good results in many cases.

I should consider the rational treatment of eclampsia to be as follows:

(1) Feeding of parathyroidin to supplement the deficient secretion of these glands,

(2) Intramuscular injection of corpus luteum, and possibly the use of placental extract to antagonize hyperfunction of the posterior pituitary,

(3) Active alkaline treatment. (Either soda bicarbonate or tri-basic citro-carbonate),

(4) Use of glucose to relieve glycogen deficiency.

(5) Venesection to lower blood pressure,

(6) Cautious elimination by enemata, catharsis and sweating,

(7) Morphine to control convulsions but not in the subsequent coma,

(8) Lumbar puncture in repeated convulsions to relieve intracranial pressure,

(9) Avoid the use of veratrum viride, pilocarpine, or other circulatory depressants,

(10) Avoid use of Pituitrin.

#### Antitoxin and Toxin-Antitoxin

The most important feature of products of this class is the accuracy with which they are standardized. Fortunately, both the diphtheria antitoxin and the prophylactic mixture admit of accurate standardization. The U. S.

Public Health Service has fixed the toxin standard, and the antitoxin is standardized by being administered to test animals with the toxin in accurately graded amounts. Some of the animals die and some survive; and there is no element of chance in the test, for the animals themselves are standardized—by weight and otherwise.

Evidently the profession has no means of gauging the reliability of a diphtheria antitoxin or of a toxin-antitoxin mixture offered for sale except the reputation of the laboratory producing it. Even previous experience is not a reliable guide, for unless successive lots are uniform it signifies nothing. The label is a printed guaranty of quality, the value of which depends entirely upon the good name of the house whose signatures it bears. Manifestly the physician must take the manufacturer's word for it. Hence the advisability of specifying on orders a producer that stands high in the confidence of physicians on general grounds—whose products as a whole bear the hallmark of quality.

Both antitoxin and toxin-antitoxin are referred to in the advertisement of Parke, Davis & Co., appearing elsewhere in this issue.

#### R

A collection bureau has been established for the benefit of the members of this Society, but some of its members have been induced by some of the "Collecting Agencies" to turn their accounts over to them. A doctor writes that after six letters he received a report from an "agency" showing two of the eleven accounts he had given them had been collected and a statement was enclosed. The statement showed that \$13.00 had been collected. Against this was charged a commission of 50 per cent or \$6.50 and "docket fees" on eleven accounts at 25 cents each, or \$3.75, leaving a balance due the doctor of \$3.75.

The Credit and Collection Bureau will collect your accounts if possible and you will be required to pay 10 per cent of the amounts paid. This helps to pay the additional expense of the Society in conducting this department for your benefit.



# THE JOURNAL

of The

## Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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### Sectarianism

It may be because medicine in its early history was intimately associated with religion and those who practiced medicine were priests; it may be because in its early history medicine thrived upon mystery; or, it may be because during the greater part of its history it has been largely built up on hypotheses and theories; but whatever the cause, there have been creeds and sects in medicine since the time of Hippocrates. People have lived more or less happily and died more or less consoled under the religious creed of their choice. People have suffered more or less courageously and died more or less resigned under the ministrations of the medical sect in which they had the most faith. Not long since, people were as firmly fixed in their medical as their religious creeds. They were allopaths, homeopaths or eclectics by inheritance or adoption; and it was as easy to change one to the other as to convert a Baptist into a Methodist. They knew little about the tenets of the religious sect to which they gave adherence, and they knew less about the tenets of the medical sect to which they entrusted their health and lives. It was all a matter of faith.

It is surprising how many people there are now whose faith outweighs their intelligence,

their reason or their judgment. There are yet a few sect adherents and there are also a few remnants of the sects in medicine. There are a few who still hold tenaciously to the untenable principles upon which their sects were founded. The present supremacy of the "regular school" does not mean the survival of sectarianism, for it was, and is, a sect only in name. It was the exponent of greater medicine, it suffered no dogmatic theories to retard its search for truth and tolerated no restrictions in its therapeutics. The time has come, however, when even the appearance of sectarianism should be eliminated. It should be sufficient to write oneself a Doctor of Medicine without any qualifying suffixes.

Sectarianism in medicine dates back to the time of Hippocrates in which we find there was the school of Cos and the school of Cuidos, teaching different views of the nature of disease and different principles for its cure. Perhaps the most notable divergence in the teaching of medicine was found, in the sixteenth and seventeenth centuries, in the chemical school of which Paracelsus was the principle exponent, the mathematical school founded by Borelli and a newer system taught by Slaht at the University of Halle, which made the soul the directing principle of the human body. Since the passing of these schools the point of deviation has been mostly in the treatment of disease, and sects have been founded upon some particular system of therapeutics.

The term allopathy, by which the unrestricted or non-exclusive system of practice has been erroneously designated, is derived from two Greek words meaning *other affection*. It was intended to convey the idea that those who did not practice homeopathy used a "system of curing diseased action by inducing a different kind of action in the body." It apparently had its origin in the classification of therapeutics given by Hahneman. "He claimed there were but three ways of employing remedies specifically. First, the allopathic method, which uses remedies whose effects are different from the symptoms of

the disease; second, the homeopathic, which employs remedies whose effects have the closest possible semblance with the symptoms of the disease, and third, the anti-pathic, which employs remedies contrary to the disease." Since there was no place in either of these systems for pathology and little recognition of anatomy, physiology or chemistry, few medical men, excepting the devotees of the Hahnemanic faith, were ready to accept such a classification. The public, however, was not reticent in the matter and doctors were then known, with or without their consent, as allopaths or homeopaths; or they were favored by the quite as objectionable designation of "old school" or "new school" doctors.

Although such claims for recognition as the Eclectic school put forth rested entirely upon a therapeutic basis, it could be included under neither of the divisions of the Hahnemanic classification. One of their exponents, in his teaching, approximated very closely to homeopathy in the treatment of symptoms by attenuated doses. But the real basis for distinction with this school was the elimination from their therapeutic resources all preparations of mercury, arsenic, antimony and lead. So that the very creed adopted by these apostles of Aesculapius by restricting their field of selection belied the name under which they choose to practice.

— R —

### CHIPS

Bichat's definition of life—"The sum of the forces that resist death."

Urato-histechia is the name given to the etiology of a disease. It means that the uric acid crystals get tangled up in the tissues, the same as a fly in a cobweb. The pain is caused by the effort on the part of the tissues to get rid of the crystals. This theory does away in part with insufficiency of the kidneys in eliminaton and causing gout.

A peculiar accident, mishap, purpose or intent on the part of the anti-vivisectionist measure to be voted on at the coming fall election in California is that, "it specifically

exempts trapping for sport or hunting dumb animals." An anti-vivisectionist's virtue consists in his inconsistency.

From some experiments conducted to prove the related effects of thyroid secretion and adrenalin upon the circulation Sadar Ono (Japan Medical World, June), concludes that the active principles of thyroid secretion sensitizes the heart of cold blooded animals and the blood vessels of warm blooded animals for the action of adrenalin.

In a paper by Prof. Swale Vincent (Lancet Aug. 12), are the following generalized conclusions on the internal secretions. "In the midst of many physiologists there is a growing suspicion that the chemical regulation of the bodily functions is not of the supreme importance that certain schools would have us believe. I would urge that if the subject of internal secretion, in both its clinical and its physiological aspects, is not to fall into utter disrepute, it must be treated with infinitely more of scientific discrimination than has hitherto been the case. The ordinary criteria of evidence must be duly regarded, and workers in all fields must realize the necessity for adequate and rigid control experiments.

One of the doctors at Battle Creek Sanitarium has discovered the cause of baldness, according to the publicity department of that institution. Men are more frequently bald than women. Men do not expand the upper chest in breathing as women do. Therefore baldness is caused by lack of upper chest expansion in breathing. (?) It is claimed that two men were cured of baldness by breathing exercises.

This line of reasoning may not appear very conclusive to the reader, neither do some of the ultra scientific theories we are expected to accept. It is possible that respiratory exercises by improving the general nutrition may also improve the nutrition in the scalp.

Before the annual meeting of the Kansas Medical Society in 1867, Dr. C. C. Shoyer read a paper on Malarial Miasm Pervading



Non-Malarial Diseases. In this paper he refers to the ill effects caused by the continued administration of quinine. He says: "Some of the most observable symptoms as a result of the long continued use of quinine in larger doses, say five grains daily, after having once pushed it to its full physiological effect, are a flushed face, dilated pupils, pain in the stomach and abdomen, thirst, etc., and a marked feature is the protracted convalescence occasioned by it."

Sixty-five years ago diphtheria and membranous croup were generally regarded as different diseases, but an occasional writer timidly suggested their identity. In a paper read before the Kansas Medical Society in 1867 reference is made to some of these. Dr. Rankin is quoted as saying: "The great distinctive mark between diphtheria and croup, properly so called, is to be found in the locality chiefly affected." It is also stated that "Dr. West in his valuable work on Diseases of Children has considered diphtheria as a form of croup. In the last edition of his work, however, he has seen fit to somewhat modify his previous views."

The first medical journal published in Kansas was the Medical Herald. According to the minutes of the annual meeting of the Society in 1868, the "Committee on Publication was instructed to contract with the publishers of the Medical Herald to have the transaction of this meeting printed in that journal and one hundred extra copies of the transactions struck off and bound separately." Then follows the following resolution which was unanimously adopted: "Resolved; That this Society heartily endorses the Leavenworth Medical Herald, and that each member is respectfully requested to aid in its support and in extending its circulation."

The pioneer doctors in Kansas were not only courageous men, they were scholarly men and they maintained exalted ideals in the practice of medicine as evidenced by the following resolution which was adopted by the Kansas Medical Society at its annual meeting

in 1868: "Resolved, That it is the high and solemn duty of each medical practitioner to instruct and protect humanity publicly and privately and especially to become, before the world, perfect patterns of physical and moral purity, and thus by combining precept and example, cause the human race to seek a higher sphere of usefulness and happiness."

A member of the German Reichstag has proposed a law to put away the chronic insane and imbeciles painlessly by an anesthetic. Aside from the cost to the government, he reasons, that the time, attention and labor of many persons is occupied in caring for these hopeless creatures who can have no object or purpose in life and there is no hope for their recovery. They are a burden to themselves and some of them beget their kind, at times. It has a hardening and benumbing effect on the morals and conduct of the caretakers and destroys sympathy in them for human kind.

Cold reason says he is right. But it is materialistic and brutish. At the same time we are taught to observe how nature does things and imitate and assist her in restoring the sick to health and maintaining the normalcy of the human body.

The twenty-third annual session of the American Roentgen Ray Society met in Los Angeles, September 12, 1922. There were over 300 in attendance from all parts of Uncle Samuel's domain.

Dr. George E. Pfahler of Philadelphia read a paper on, "The Effect of the X-Rays and Radium on the Blood and General Health of Radiologists." He reported five deaths from aplastic anemia caused directly or indirectly from the radiations of radium or x-rays.

To wring secrets out of nature's laboratory that are of vital interest to the human organism she exacts human sacrifice. Of the professions none is required to make greater sacrifices for the relief of human suffering than the medical profession. And it meets the exacting requirements.

The action of far ultraviolet light on nor-

mal tissue and the action of near ultraviolet light under certain pathologic conditions have been investigated enough to show that there are well defined effects due to light, closely related to the physiologic results of exposure to radium and the roentgen rays. Recently, Kramer, Casparis and Howland have again demonstrated the healing of the rachitic process in the bones of rachitic children through systematic exposure to the rays from the mercury vapor quartz lamp. The healing of the bones occurred at about the same time that it does after the administration of cod liver oil. The work of Finsen in the treatment of lupus vulgaris emphasizes the importance of considering a diversity of forms of radiant energy in skin affections. In tuberculosis, especially surgical tuberculosis heliotherapy has long had advocates. Light of short wave length, which is known to have marked bactericidal effects, may not be without salutary influence in the treatment of wounds. Artificial lights, if glass covered, are therefore harmless and therapeutically weak. Sunlight rarely contains enough far ultraviolet rays to produce injury. Consequently, heliotherapy that demands highly potent effects must look to artificial sources of radiation. The quartz mercury arc and bare metallic arcs are known to belong in the potent class, and, it is to be remembered, may be extremely injurious, so that the eyes should be protected from them. (*Jour. A. M. A.*, Sept. 2, 1922.)

There are serious limitations to intravenous medication which are likely to be forgotten or over-looked in the enthusiasm for a promising procedure. They involve both disappointments and dangers. These were reviewed by Carl Voegtlin before the Section on Pharmacology and Therapeutics at the St. Louis session of the American Medical Association. Not the least in importance are the difficulties of technic which form a stumbling block for all too many physicians. Voegtlin pointed out that the chemical composition of the blood and its physicochemical properties, such as osmotic pressure, hydrogen-ion concentration and colloidal state, are maintained with

remarkable constancy and appear to be essential to physiologic well being. A sudden change in reaction, the production of precipitates and subsequent thrombosis in vital organs, the overwhelming of sensitive tissues, such as the cardiac and nervous structures, with high concentration of potent drugs, are a few illustrations of the untoward possibilities in a procedure that often means "more haste and less speed." (*J. A. M. A.*, Sept. 2, 1922.)

At the September term of the Appellate Division of the Supreme Court sitting in Albany a decision was handed down last week in the case of Maria Barresi vs. the State Commissioner of Health, which emphatically sustains the discretionary power of the Commissioner to issue or to withhold annual licenses to midwives, as provided in the public health law and the state sanitary code.

In handing down the judgment of the court Justice Kellogg quoted a long line of precedents which tend to uphold the discretionary powers of administrative officials who are empowered but not required by statute to issue licenses, grant certificates and make appointments. "Certainly if the public good demands," said Justice Kellogg, referring to these cases, "that administrative officers be vested with plenary power to determine the fitness of applicants to conduct taverns, to give theatrical entertainments, to conduct auctions, to practice osteopathy, to become policemen and superintendents of public works, then the discretion of the state commissioner of health to reject as unfit an applicant for a license to practice midwifery, a profession which offers convenient opportunity for criminal practices, ought also to be plenary and free from judicial review or compulsion."

The character of the evidence sometimes presented by so-called reformers in their efforts to win support to their *cause* may be convincing to the average reader, but seems ridiculous to those who know something of the facts.

In a recent bulletin sent out by The Citizen's Medical Reference Bureau, New York,



an attempt is made to show the inadequacy of vaccination against small pox. The "Secretary" makes the statement, in regard to the report of the epidemic of small pox in the Philippines in 1919, that "The fact that 7 per cent of deaths and 14,000 cases of small pox are admitted to have occurred among those 'successfully vaccinated' does not speak well for vaccination as a health measure." Yet the report from which he gets his figures shows that there were 112,549 cases, and that 97,814 were in unvaccinated and only 14,375 in those previously vaccinated. There were 60,855 deaths, of which 56,595, or 93 per cent, in unvaccinated cases, and only 4,260, or 4 per cent, in vaccinated cases.

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### BOOKS

The Medical Clinics of North America (Issued Serially, one every other month), Volume V, Number V, March, 1922. By Boston Internists. Octavo of 335 pages, with 62 illustrations. Per clinic year (July, 1921, to May, 1922). Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

Christian has a very instructive article in this number on the effect of digitalis in chronic cardiac cases. Morse has an article on chronic indigestion in early childhood. Sturgis presents some cases of myxedema. Reid has a very interesting article on cardio vascular syphilis and Cobb discusses the pathology of epilepsy. Then there are clinics by Roby, Joslin, Minot, Crothers, Pratt, Frothingham, O'Hare, McClure, Wyman, Hill, Jones, Root, Buckman, Ohler, Viko and White.

The Writing of Medical Papers. By Maud H. Mellish, Editor of the Mayo Clinic Publications. 12mo of 157 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$1.50 net.

This will be a very handy little book for all of us. It tells so many things one really wants to know when preparing a paper. It tells us a great deal about capitalizing, italicizing, punctuating, and the proper use of words and the proper words to use. A very handy little book.

The Surgical Clinics of North America (Issued serially, one number every other month). Volume 11, Number 111 (Chicago Number, June, 1922) 289 pages, with 89 illustrations. Per clinic year (Feb-

ruary, 1922, to December, 1922). Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

In this number are reports of the Clinics of A. J. Ochsner, Kanavel, Mix, Halstead, D. C. Straus, Culbertson, Bevan and Gill, Speed, Carl Beck, Watson, McWhorter, Shambaugh, Kretschmer, Herbst, Gatewood, Dyas, Pennington, A. A. Straus, McKenna, Davis. Ochsner reports the removal of renal calculus from the pelvis of a floating kidney, the second kidney being absent.

Diseases of the Thyroid Gland by Arthur E. Hertzler, M.D. Professor of Surgery in the University of Kansas, School of Medicine. Surgeon to the Halstead Hospital, Halstead, Kansas; Surgeon to St. Luke's Hospital and St. Marys Hospital, Kansas City, Mo., and Provident Hospital, Kansas City, Kansas. One hundred and six illustrations. Published by C. V. Mosby Co., St. Louis. Price \$5.00.

In this book Dr. Hertzler has contributed something to medical literature that is worth while. He has had a large experience and has been a careful and conscientious observer and has had the opportunity to compare the pathology of the tissues removed and to arrive at some definite conclusions. It should be read by every student and practitioner.

The Surgical Clinics of North America (Issued serially, one number every other month). Volume 11, Number IV (Boston Number, August, 1922) 270 pages, with 107 illustrations. Per clinic year (February, 1922, to December, 1922). Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

As contributors to this number we find Graves, Bottomley, Lahey, Quinby, Cutler, Davis, McAusland, Harmer, Whittemore, Richardson, Cotton, Smith, Barney, Shedden, Smith, Jones and Walker. Cotton has a very extensive clinic on knee lesions and operations.

The Practice of Medicine. By A. A. Stevens, M.D. Professor of Applied Therapeutics in the University of Pennsylvania; Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Octavo of 1106 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$7.50 net.

This is as nearly a complete work on the practice of medicine as it is possible to produce in one volume. The author has endeavored to include all that is known of disease and its treatment and all of the accepted

theories of disease. He has avoided controversial discussions and unaccepted theories. There are more than a thousand pages of it and it is all good reading.

**Principles and Practice of X-Ray Technic for Diagnosis.** By John A. Metzger, M.D. Roentgenologist to the School for Graduates of Medicine, Medical Department, University of California. Sixty-one illustrations. Published by C. V. Mosby Co., St. Louis. Price \$2.75.

The author desires to give the student and operator a formula on which to base his work in order to obtain better results and reach a more correct diagnostic interpretation. The subject is well presented and the formulae given seem to have been carefully worked out.

**1921 Collected Papers of the Mayo Clinic,** Rochester, Minn. Octavo of 1318 pages, 392 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$12.00 net.

There are more than twelve hundred pages of very interesting and very instructive matter in this book. So many subjects are discussed that it is something of a library in itself—and one which is quite up to date.

There is no need to review in detail the various reports. It is sufficient to say that all of the papers and reports have been carefully selected and represent the most recent achievements in medicine and surgery.

**Diseases of the Skin.** By Henry H. Hazen, A.B., M.D. Professor of Dermatology in the Medical Department of Georgetown University; Professor of Dermatology in the Medical Department of Howard University. Second edition. Two hundred forty-one illustrations including two colored plates. Published by C. V. Mosby Co., St. Louis. Price, \$7.50.

The book has been largely rewritten. The treatment by x-ray, radium and the Kromayer lamp has been given considerable emphasis. Some new subjects have been added, and the discussion of syphilis has been amplified.

**Obstetrics for Nurses.** By Joseph B. DeLee, M.D. Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (6th) Edition, entirely reset. 12mo of 525 pages, with 245 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth \$3.00 net.

As was to be expected from DeLee this little volume tells the nurse all that she needs to know on the subject. The directions are explicit and the illustrations are especially instructive. In this edition the author has

given special attention to the deliveries in hospitals and has followed very closely the methods used in the Chicago Lying-In Hospital.

**The Surgical Clinics of North America** (Issued serially, one number every other month). Volume 11, Number 11 (San Francisco Number) 259 pages, with 112 illustrations. Per clinic year (February, 1922, to December, 1922). Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

This number contains reports of the Clinics of Woolsey, Spalding, Naffziger, Cowan, Huntington, Ely, Weeks, Bartlett, Gilman, Brunn, Terry, Cleary, Kilgore, Pope, Eloiser and Lynch. Many of the cases are of unusual interest.

**The Medical Clinics of North America** (Issued serially, one number every other month). Volume V, Number VI, May, 1922. By Chicago Internists. Octavo of 308 pages and index to Volume V complete with 22 illustrations. Per clinic year (July, 1921, to May, 1922). Paper \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

Williamson has an article on pernicious anemia. Hamil presents some interesting cases of hysteria. C. A. Elliott discusses the management of goiter. Friedman gives some valuable points in the diagnosis of the gastric neuroses. Then there are contributions from the clinics of Portis, Grulee, Byfield, Carr, A. R. Elliott, Abt, Witt, Mix, Hamburger, Daly, and Strouse, Sonnenschein, Hess, Smith, Cornell, Kerr, Gerstley.

—R—

## DEATHS

William Stephen McDonald, Fort Scott, died July 23, aged 68, from angina pectoris. He was graduated from the Jefferson Medical College, Philadelphia, in 1888. He was on the staff of the Mercy Hospital. He was a member of the Kansas Medical Society.

Elnora Gilson Whitmore, Topeka, died August 19, aged 56. She was graduated from the Woman's Medical School of Northwestern University, Chicago, in 1894. She was a member of the Kansas Medical Society.

Rodnia S. Plummer, aged 73, died in Topeka, September 26 after a two weeks' illness. He graduated from the Louisville Medical College in 1883 and had practiced medi-



cine in Topeka for more than thirty years. He was a member of the Shawnee County Medical Society.

—R—

## SOCIETIES

### THE NORTHEAST KANSAS MEDICAL SOCIETY

Here is the program of meeting of The Northeast Kansas Medical Society to be held at Atchison on Thursday, Oct. 26, 1922. Meeting at 1 p. m. at the Byram Hotel.

#### PROGRAM

1. "Clinical Varieties of Otitis Media," Dr. W. W. Reed, Topeka.
2. "Some Phases of the Relation of Dental Focal Infection to Systematic Disease" (Lantern Slides), Dr. R. L. Haden, School of Medicine, Rosedale.
3. "Indications and Contraindications for Caesarean Section," Dr. L. Leverich, Kansas City.
4. "The Treatment of the Psycho Neurotic," Dr. Karl A. Menninger, Topeka.
5. "Manifestations of Food and Sensitization in Infancy," Dr. Hugh L. Dwyer, Kansas City.
6. "Pollen Antigens," Dr. Paul M. Krall, Kansas City.
7. "Arterial Hypertension" (Lantern Slides) Dr. Ralph H. Major, School of Medicine, Rosedale.
8. "Haematuria," Dr. J. E. Burns, Kansas City, Mo.
9. "The General and Specialized Care of Patients Suffering from Uterine Cancer," Dr. E. H. Skinner, Kansas City, Mo.
10. "Diagnosis and Treatment of Exophthalmic Goitre," Dr. C. J. McGee, Leavenworth.
11. "Thyroid Surgery," Dr. H. J. McKenna, Kansas City, Mo.
12. "Splenomegaly," Dr. W. K. Fast, Atchison.
13. "Adynamic Ileus," Dr. H. L. Charles, Atchison.
14. "The Control of Communicable Disease," Dr. C. W. Robinson, Atchison.

Dinner at 5:30 o'clock p. m. at the Byram Hotel given by the Atchison County Medical

Society for the guests and members of the Northeast Kansas Medical Society.

J. L. EVERHARDY, Secretary.

### STAFFORD COUNTY SOCIETY.

Society met in St. John at 3:00 p. m., September 13th. Members present: W. L. Butler, T. W. Scott, F. W. Tretbar, Stafford; M. M. Hart, H. H. Miner, Mackville; L. E. Mock, J. C. Ulrey, J. T. Scott, St. John. Dr. Nevin of Kinsley, was a visitor. This was the opening meeting of the fall and winter sessions, there having been no meetings during July and August. The essayist for the meeting being away, the regular program was continued to the October meeting and Dr. J. T. Scott presented case reports on Intussusception and Metallic Cataphoresis in the treatment of Post-Operative Sinus. There was an interesting discussion of the reports. Dr. C. S. Adams will read his paper on Extra-Uterine Pregnancy at the October meeting. Dr. Nevin of Kinsley will become a member of this society since the Edwards County Society is not functioning and the doctor feels the need of membership in a live society.

J. T. SCOTT, Secretary.

### FORD COUNTY MEDICAL SOCIETY.

At the October meeting the members of our society were privileged to listen to two very interesting and instructive papers by visiting doctors.

"Drainage in Acute Suppurating Appendicitis," Dr. E. E. Morrison, Great Bend.

"The Body's Immunizing Mechanism," Dr. J. T. Scott, St. John.

Our visitors were: E. E. Morrison, Great Bend; J. T. Scott, St. John; M. M. Hart, Macksville; W. C. Bundrant, Pawnee Rock; C. W. Zugg, Great Bend; F. O. Blaine, Copeland; C. B. Wycoff, Jetmore; T. S. Venard, Scott City; J. L. Nevin, Kinsley; R. G. Klein, Dodge City.

W. F. PINE, Secretary.

### RILEY COUNTY SOCIETY.

The Riley County Medical Society met at the Gillett Hotel at 6 p. m., September 11,

1922. Following the dinner the meeting was called to order by President C. F. Little. The minutes of the previous meeting were read and approved.

The following members were present: Drs. Cave, Colt, Sr., Colt, Jr., Evans, Groody, C. F. Little, Ross and Siever.

Report of committees—Secretary reported that the editor of the Tribune had been interviewed in regard to the advertising of traveling "Quack doctors." And that the society was assured of the editor's co-operation in this matter.

An interesting paper was read by Dr. Muldoom of the college on "The Similarity of Contagious Pleural Pneumonia in the Horse and Human La Grippe." The paper was discussed by all and a vote of thanks was given Dr. Muldoom for his most interesting paper.

Dr. Ross gave an interesting talk on "The Pathological Conditions of the Nasal System and Submucous Resection." Discussed by all present and discussion closed by Dr. Ross. Motion to adjourn was carried. Adjournment 8:45 p. m.

JAMES D. COLT, JR., Secretary.

#### BARTON COUNTY SOCIETY.

The Barton County Medical Society held an interesting meeting at Great Bend the afternoon and evening of September 13th. The afternoon program consisted of a few rounds of golf. Dinner was served at 7 p. m. and following the dinner Dr. Marion Truehart of Sterling gave an interesting talk on radium and its therapeutic uses. Lantern slides were used to illustrate the case reports.

Barton county as usual starts its fall program with a "peppy" meeting and promises to furnish us with many more of like nature.

Dr. Lightfoot's eulogy to the memory of the late Dr. Connett was a beautiful tribute from the living to the dead, and, coming as it did from one who had been intimately associated professionally for a great many years with the deceased, was the sincerest acknowledgement of his worth and integrity.

J. A. DILLON, Councilor.

#### WILSON COUNTY SOCIETY

The Wilson County Medical Society met at the hospital at Neodesha on Monday evening, September 11. Banquet was served at the hospital at 7 p. m. with the following members present: McCoy, Smith, McGuire, Williams. Sharp of Neodesha; Flack, Wiley, Jacoby, Butin, Duncan of Fredonia, and Dodge of Fall River.

This society has been meeting four times yearly heretofore but with our good roads and cool weather coming, the proposition of monthly meetings was discussed and we decided to meet monthly. Some difference of opinion over the advisability of serving refreshments arose. It was voted to have either banquet or lunch at each meeting following our old custom and that of such organizations as the Rotarians and Kiwanians. The social feature has always loomed large with our society.

In view of the fact that cut and dried papers, with a large amount of the subject-matter copied from text books has not been popular with us for several years, we decided on a different plan. Some interesting case or something of interest will be presented by a member after which discussion will be general. A sufficient number of such cases by different physicians will be presented, which, together with the discussion, will occupy our evening.

Some local conditions that had threatened to cause trouble in the society were talked over and decisions taken that we feel sure will make our society the equal of any society of its size in the country.

The monthly meetings we believe, will put real life and pep in the organization. The Docs in our county get along mighty nicely as it is, but if, after attending our monthly meetings till next June and taking part, we are not on still better terms with more kindly feelings between our members, why, the secretary will stand a banquet on himself.

Yours truly,

E. C. DUNCAN.



## ANDERSON COUNTY SOCIETY

The Anderson County Medical Society held a meeting Wednesday evening, September 27, at the Lake and Club house north of Garnett, at which they had as guests the Franklin and Miami county societies. Thirty-five members were present and the following program given:

6 p. m.—Chicken dinner.

8 p. m.—Dr. James W. May, Kansas City, Kansas—Injury to the Eye.

Dr. P. M. Krall, Kansas City, Kansas—Phases in Treatment of Pneumonia.

Dr. Karl A. Menninger, Topeka, Kansas—Psychoanalysis.

These gentlemen gave excellent talks on the various subjects, which indicates that each is a master in his specialty. Following the program Dr. C. C. Godard of Leavenworth, councilor for this district, gave a very interesting talk on Medical Association and its benefit to the general public.

J. A. MILLIGAN, Sec.

## ATCHISON COUNTY SOCIETY.

The Atchison County Medical Society was given a rare treat on September 15 through the efforts of Dr. S. J. Crumbine, Secretary Kansas State Board of Health. The speaker of the occasion was Dr. Borden S. Veeder, Professor of Pediatrics, Washington University and Chairman of the Section on Diseases of Children of the American Medical Association. In the afternoon at the Chamber of Commerce a clinic was held. Difficult feeding cases were presented to Dr. Veeder by the family physician. Forty-four cases were examined in the clinic. Several out-of-town physicians were present and presented cases.

At 8 o'clock Dr. Veeder addressed the County Medical Society on Diphtheria, prophylaxis and treatment, and infant feeding. Dr. Veeder's clinic and talk to the mothers and physicians was very interesting and instructive and the County Medical Society feels that it had one of the rarest treats it had had in several years.

On October 4, the regular monthly meeting of the society was held. Dr. Floyd Spencer

of St. Joseph, Mo., read a very interesting paper on empyema and Dr. H. Carle, also of St. Joseph, gave a clinical talk on diabetes. Arrangements were also completed for entertainment of the Northeast Kansas Medical Society which meets in Atchison October 26.

CHAS. W. ROBINSON, M.D.,  
Secretary.

## GOLDEN BELT SOCIETY

The Golden Belt Medical Society met at Salina, Thursday, October 5. There was a fairly good attendance at the afternoon and a good crowd at the evening session.

Dr. J. D. Colt, Jr. of Manhattan read a paper on "Basal Metabolism." Dr. Geo. S. Zerzan, Holyrood, read a paper on "New Ideas in the Diagnosis and Treatment of Kidney Diseases," and Dr. C. F. Menninger, Topeka, read a paper on "Diagnosis and Prognosis of Diabetes."

Dinner was served by the ladies of the Presbyterian church. After dinner moving picture films were shown. These were made by Drs. Wirthheim and Weibel of Vienna and showed a series of obstetric procedures. It was a very interesting and instructive exhibit.

## —R—

## From the Salicylates to Cinchophen

The salicylates have had their day. One by one, those who have been prescribing them in years past are turning to Cinchophen. And they are wise to do so. For clearly Cinchophen is the better drug in many cases of acute rheumatism and other painful conditions.

Precisely how it acts within the body is still a question. But we do know that neither the salicylates nor any other drug so sharply increases the elimination of uric acid. A decided increase is obvious in the voidings and can be demonstrated easily by urine tests.

Simultaneously, in a rheumatic person, the subjective symptoms disappear or, if persistent, become less troublesome. A pleasing fact to note is that Cinchophen is less irritating to the kidney than the salicylates. Albuminuria occurs but seldom; when it does it is not nearly so severe.

The Abbott Laboratories, Chicago, announce lower prices for Cinchophen, which is well, seeing that the drug is so useful. The same firm is also making Neocinchophen.

### Kansas Children's Code

#### SHEPPARD-TOWNER ACT

Kansas is to receive \$16,922.51 as its share of the Sheppard-Towner money, provided it is matched dollar for dollar by a state appropriation. The last session of the legislature appropriated \$7,500 to the Division of Child Hygiene and it will be necessary to raise this to \$16,922.51 to secure the full federal allotment.

The Sheppard-Towner Act expressly forbids the spending of this money for buildings, equipment, or financial aid to needy mothers and children. This provision was made for the purpose of preserving the central object of the Act, which is to reduce maternal and infant deaths through the education of the mother and expectant mother and the community at large. The experience of other states and cities which have reduced their death rate shows that this provision is wise.

#### VITAL STATISTICS REPORT

The report of the Vital Statistics Bureau of Kansas for 1921 shows a decrease in the infant mortality rate. In 1920 the rate was 73.5 deaths under one year of age per 1000 births; in 1921, 61.4 deaths per 1000 births. In the cities the death rate runs higher than the state rate, 80 deaths per 1000 births in Topeka and 76 in Kansas City in 1921. It is interesting to know that the infant mortality rate among colored babies in Kansas is very high, being 166 deaths per 1000 births in comparison with a white rate of 71.

While there were fewer deaths in Kansas of infants under one year of age in 1921 than in 1920, there were more deaths at birth or from causes operative at birth. In other words, the per cent of birth mortality was higher in 1921 than at any time in the past five years. The marked decrease in the infant mortality rate has been largely in that group which has survived the first few weeks of life.

The infant death rate in the United States as a whole for 1921 was 86 deaths per 1000 births. The lowest infant death rate in the world is that of New Zealand, which is 45 deaths per 1000 births. In only two cities of the United States has a baby an equal chance for life, in Portland, Oregon, with a death rate of 48, and San Francisco with a rate of 51.

Fifteen thousand deaths from maternal causes occur annually in the United States, and the available figures for this country show no decrease in the maternal death rate since 1900. More women from 15 to 45 die from conditions connected with childbirth than from any disease except tuberculosis. In Kansas, 262 women died in 1921 from causes connected with child bearing, an increase of 7 over 1920. The United States ranks sixteenth in maternal mortality in comparison with other civilized countries, Spain and Switzerland alone having a higher maternal death rate.

#### CAUSES OF INFANT DEATH

Deaths in early infancy are closely identified with those occurring from natal and prenatal causes, according to a report on Infant Mortality in Pittsburgh, published by the Federal Children's Bureau. In this group are assembled deaths from prematurity, congenital debility, injuries at birth, malformation, and syphilis, causes for the most part directly connected with the care and condition of the mother. In Pittsburgh, in 1920, 704 babies, or 43 per cent of all babies who died, died from causes operative at birth. The most effective method by which the community can cut the high ratio of these losses is by providing care and instructions for the mother before her baby's birth and skilled attendance during her confinement. Three hundred babies, or 25 per cent, died from gastrointestinal diseases, deaths occurring for the most part in the heat of summer. This may be cut by instructions to mothers in the proper care and feeding of babies and by adequate civic supervision to insure purity and proper handling of the milk supply.

Respiratory diseases claimed the third



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largest group of babies, 319, or about 19 per cent. Bronchitis and pneumonia combined in this group take their largest toll of babies in winter and in congested districts. Crowded homes and lack of fresh air leave babies easy prey to these diseases. Community housing laws and education of the parents as to the value of fresh air are the means at the disposal of the community to save these babies.

In a careful study of these deaths in Pittsburgh it may be seen that the immediate causes of death thus analyzed have their sources in the more remote and complex factors touching the social economic, and civic conditions in Pittsburgh. Low wages, poor housing, insanitary surroundings, ignorance, illiteracy, lack of nursing and medical care were everywhere coincident with high infant mortality rates.

#### RESULTS IN LARGE CITIES

New York City, with its handicap of overcrowding, its tenement house problems, its alien races, and marked climatic changes, has a lower infant mortality rate than Topeka, 71 per 1000 births in comparison with 80 in Topeka. How was this result accomplished? From figures of the New York Maternity Center Association, it is known that among 4,496 women who were supervised through pregnancy and for a month after the baby was born, the proportion of babies dying before the end of the first month was only 42 per cent of that of the city as a whole. These mothers lived under the low income handicap, yet with proper care, they were able, in a large number of cases, to bring healthy babies to birth.

In Boston, in 1920, the infant mortality under two weeks of age was 37 per 1000 births. For births to 4,036 mothers who were given prenatal care by the District Nursing

Association it was 13 per 1000—a marked reduction.

In Cleveland the mortality rate among babies under one month of age was reduced from 31.4 per 1000 births to 24.8 in a district where the baby rate was found to be much higher than the rate for the city as a whole.

All of these facts emphasize the need of better prenatal care and better care during child birth and show what may be accomplished through this care. The education of mothers and expectant mothers and the establishment of maternity centers in the various communities in Kansas, in connection with the local public health work, made possible by the federal money coming into Kansas through the Sheppard-Towner Act, will mean a reduction in both maternal and infant mortality rates.

—————R—————

#### A Report on Pneumococcus Inoculation in New York State Institutions

G. W. McCoy and H. E. Hasseltine, Washington, D. C.; Augustus Wadsworth and Mary B. Kirkbride, Albany, N. Y. (*Journal A. M. A.*, Sept. 30, 1922), record the results of a study of the practical value of prophylactic inoculation against pneumonia among the inmates of certain New York State institutions, a study which was conducted jointly by the Hygienic Laboratory of the United States Public Health Service and the Division of Laboratories and Research of the New York State Department of Health. While the results are far from satisfactory and do not permit drawing any definite conclusions, nevertheless, they do show that a relatively large number, if not proportionately an equal number, of cases of pneumonia developed after inoculation. Further more, they show the development, in the inoculated group, of

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pneumonias incited by the three fixed types of pneumococcus used in the vaccine.

R

### Production of Arteriosclerosis in Rabbits by Diets Rich in Animal Proteins

By means of diets containing 27 and 36 per cent of protein derived chiefly from beef, L. H. Newburgh and Sarah Clarkson, Ann Arbor, Mich. (*Journal A. M. A.*, Sept. 30, 1922), have produced true atherosclerosis in the rabbit. The time of appearance and the extent of the lesion were roughly proportional to the amount of protein in the diet and the duration of the feeding.

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# THE JOURNAL

of the

## Kansas Medical Society

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No. 11

### "Ileus"

W. E. MOWERY, Salina, Kan.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

In its broadest application ileus is best described as any condition resulting in coprostasis. For practical purposes it is classified as dynamic, adynamic and mechanical.

*Dynamic Ileus* is a spasmodic condition of some portion of the intestinal tract resulting in obstruction, very rare in occurrence and seen only in lead and tyrotoxicon poisoning, but of sufficient importance to demand recognition.

*Adynamic Ileus* is a paralytic condition of the intestinal tract. It is the most frequent in occurrence and is the result of infection and toxemia or interference with the nerve or blood supply to the gut.

The toxemias producing it in order of their importance are, first, peritonitis from any cause, either local or general, and, since appendicitis and pelvic infection are first in order of frequency, they are first in order of cause. Ten years ago I made the statement to one of my colleagues that peritonitis never caused death in any patient unless it was complicated by ileus, and I think that this is now accepted by all surgeons.

In my opinion the second toxemia in importance from a surgical standpoint is ether anesthesia. Pneumonia, general septicemias, uremia and toxemias from other drugs may also be responsible for the condition.

As a result of interference with the nerve supply to the gut, it occurs directly from cord and afferent nerve affection and most frequently from injury to the gut or mesentery from mauling of the viscera during intra abdominal operations.

Reflexly from strangulated or compressed gut, omentum, ovary or other viscera, hepatic or renal calculi, gun shot or puncture wounds

of the chest or neck, pneumonia pleurisies and pain.

As the result of interference with the blood supply to the gut, it is produced by embolism, thrombosis and tortion.

Mechanical ileus is a positive pathological lesion and is produced, first by hernias; second, bands of adhesions and masses of adhesions from infections; third, intussusception and volvulus; fourth, cicatricial contractions; fifth, new growths and diverticuli; sixth, foreign bodies and impactions.

In presenting the above classification we realize that it, as other classifications, carries with it a certain per cent of error, as a cause classified under one head may be a factor in any particular case in common with a cause classified under another head, and the different forms of ileus are so closely related that one may become a part of the other to such an extent that it is occasionally impossible to say just when the paralysis becomes a result of the obstruction, or the obstruction the result of the paralysis. However, if we obtain a thorough understanding of the above classification, we can realize all the possibilities of an ileus and are then armed with the knowledge essential to its proper diagnosis and treatment.

The diagnosis which differentiates one form of ileus from its neighbor as well as the various other conditions with which it may be confused is dependent upon a thorough knowledge of the underlying pathology, which in turn naturally suggests the treatment.

As we run we read, and we at once see that the practical application of the subject resolves itself in dealing with the paralytic and mechanical forms, therefore, we will confine our remarks to them.

The pathology and symptoms of these two

conditions bear many things in common and each may become a part of the other, still a careful analysis will do much to clear our vision.

*Pain* is a prominent symptom in both forms, occurs at the outset as the first symptom in mechanical ileus, is intermittent in character, produced by increased peristalsis of the gut above the obstruction and is gradually diminished as the gut gives away to distention from paralysis. While in paralytic ileus it occurs late or is entirely absent, especially where the progress of the disease is slow, is the result of distention and peritoneal irritation and is steady in character.

*Vomiting* is the next symptom in importance and onset in mechanical ileus, becomes progressively worse as the disease advances, at first of stomach content, light in color rapidly becoming darker and more putrid to fecal, and is expulsive in character. We halt with a word of caution here as the surgeon who relies on diagnosing and relieving his patient when fecal vomiting is reached will send him from the operating room to the morgue. In paralytic ileus, vomiting occurs later, is the result of distention, a sort of an overflowing, and is gulping in character.

*Distention* is the third symptom of importance, prominent in both forms, occurs late in mechanical, is confined to the portion of the gut above the obstruction and is the result, not the cause, of the obstruction. While in paralytic it occurs at the outset as the first symptom, is general in extent and figuratively speaking is the cause not the result of the obstruction.

*Temperature* is not high in either form but usually occurs earlier and runs a trifle higher in the paralytic form.

*Tumor Mass and Localized Distention* can occasionally be outlined in the mechanical form, never in the paralytic.

*Peristaltic Wave* can occasionally be seen and always heard in the mechanical form, while the abdomen is perfectly quiet in the paralytic.

*The Course of the Disease* and its general effects on the patient's physical condition are

more severe in the mechanical variety, but are governed entirely by the pathology involved. Where there is a complete obstruction the symptoms and course of the disease are more prominent and rapid. Again when the obstruction is sudden in onset the symptoms are greatly aggravated.

When strangulation is added to the obstruction the condition assumes a double liability. A patient may survive a partial obstruction for some time and a complete obstruction for several days, but when complicated by strangulation the scene changes. A fair rule is: That a gut with complete obstruction and strangulation if relieved within the first twelve hours will survive; from twelve to eighteen hours, resection offers a good chance for recovery, from eighteen to twenty-four hours a fair chance; from twenty-four to thirty hours, very little chance, and after thirty hours practically no chance, resection or no resection.

*In the Paralytic Variety* the underlying cause, the severity in onset, and the rapidity in progress govern the course of the disease.

*Treatments:* Mechanical ileus knows but one master, that is surgery, and the sooner the patient is given the advantage of a well directed operation the better are his chances for recovery.

In paralytic ileus we are given a little more grace and it is permissible to try a few of our favorite stunts, but nevertheless, we should at all times be mindful that this is a serious condition and that procrastination may be an expensive past time to our patient.

The substitution of local, gas oxygen and spinal anesthesia for ether, together with careful manipulation during operation, and efficient drainage of all infected cavities is the fore word in its prevention. In selected cases the judicious uses of small doses of morphine at regular intervals is permissible as a means to ward off the condition, but should not be used when once the disease has gained a substantial foothold, and when we say morphine in ileus, we must remember that we are speaking of paralytic ileus, as it has no place in the treatment of mechanical ileus,



and is only permissible here as a preoperative medication.

Gastric lavage and enemas are indispensable and of great value. Here again we may extend our ingenuity in trying out various kinds.

The hypodermic use of eserine and pituitrin have gained recognition and are occasionally beneficial.

If after a reasonable effort we find the disease persisting or advancing and the patient slipping, we should not hesitate, but give them relief by doing an enterostomy. This should be done under local anesthesia after the method of a Witzel Gastrostomy.

In all forms of ileus the patient rapidly becomes toxic, dehydrated and acid, and should be protected as far as possible against these complications.

—R—

### The Recurring Tonsil

LAVERNE B. SPAKE, M.D., Kansas City

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

The recurring tonsil, or lymphatic infiltrate, which fills the tonsillar fossa following tonsillectomies, is rather a common occurrence where so many men are doing throat surgery. This paper is to take up only the anatomical and surgical reasons which we believe to cause such recurrence, with the adaptation of a few minor surgical procedures usually omitted in operation.

Rarely do we see a tonsil recur from the supra-tonsillar fossa, (except in those cases where a tonsillotomy has been performed, where two-thirds of the tonsil and capsule remain) but in those cases where the tonsil has been completely removed, and on examination, a mass is found at the base, which develops in size as the years roll around. There are many cases that we personally know of, where the tonsil have been removed three or four times for the benefit of some focal infection, without results. Only recently we removed a pair of tonsils which had been partly removed four times in the last eight years and we removed a good sized infected tonsil.

Depressing the tongue the inferior tonsillar

fossa takes the shape of a right angle triangle, the base being an imaginary line drawn horizontal to the tongue, from the junction of the anterior pillar, to a point on the posterior pillar. The posterior border being a line drawn perpendicular to the base, inferiorly, representing a prolongation of the posterior pillar to the tongue. The inferior border being the edge of the tongue from the anterior pillar to the pharynx. The apex of the triangle is at the base, the junction of the tongue and the lateral wall of the pharynx, to which we have given the term *infra tonsillar triangle*.

Within this infra tonsillar triangle we find the cause of the recurrence of tonsils. The tonsil and the plica triangularis are very closely related in both the child and adult. The following is an extract from Cunningham, "From the posterior surface of the glosso palatine arch a thin triangular fold of mucous membrane called plica, first described by His, passes backward to the posterior pillar. Its base corresponds to the glosso palatine arch, its superior border is free and frequently overlaps the tonsil. In some cases the plica may be fused with the free surface of the tonsil, and lymph tissue may be developed on the medial surface of the plica."

Lymph tissue contains lymph nodules which have the power of generation, so if lymph tissue is left during operation, either within the plica triangularis or retro tonsillar, or the masses between the tonsils and the tongue, the lymphoid masses will generate new lymphoid tissue, which will fill the tonsillar fossa in a few years with a second tonsil or infiltrate of lymphoid tissue.

In cases with marked hypertrophied tonsil the inferior lobe may fill the infra tonsillar triangle; the plica may not be so completely developed in this class of cases, which is usually found in children, as the cases of adults with a small fibrous or submerged hypertrophied tonsil will, on examination, show a marked development of the plica. The origin of focal infection should never be considered without a study of the plica, the nodules and the lymph masses at the apex of the infra ton-

sillar triangle. The lymph masses may be seen only in broken chains or in the minute forms which do not represent a pathological condition, but when found in solid masses or columns is representative of diseased condition. These masses of lymphoid tissues are a part of the tonsil, as I will demonstrate with a few slides which we have of these lymphoid masses at the base. The mucous membrane covering the masses is generally attached to the inferior pole of the tonsil, but the loosely attached ends of the lymphoid bodies extend upward to, and occasionally slightly overlap the under surfaces of the posterior halves of the inferior lobes. On examination of the plica at the base we have demonstrated repeatedly the presence of necrotic material just under the mucous membrane.

In the lymphoid masses are found crypts with necrotic material embedded so deeply that it can only be removed by curette. We have found where the tonsils were removed for the benefit of focal infection and results were not obtained, the throat should be re-examined for the presence of infected lymphoid masses at the base. We believe, and are backed by our microscopical findings, that these masses are of the same elements as the tonsil, with only a rearrangement in the grouping, as the capsule is almost always continuous with the capsule of the tonsil. Lymphoid follicles are found with germinal center and crypts are all present in the nodules.

The removal of tonsils should also mean the removal of all lymphoid tissues within the infra tonsillar triangle. Sawtell forceps are used for grasping the tonsil at its middle third and traction is made inward and slightly forward, the bulk of the tonsil is then visible, and sharp dissection is started on the anterior pillar or just internal to it, and carried downward, hugging close to the pillar, to the tongue, then the supra tonsillar lobe is dissected by sharp dissection and carried half way down the posterior pillar. The tonsil is now everted and snare applied with the wire loop over the inferior lobe, watching the snare wire to see that it is over the lower

pole. A wire should be used only once, as it curls and cannot be straightened out properly, leaving the lower pole and development of the second tonsil. The tongue is depressed by a suction tube with an attachment invented by Dr. J. A. Fulton, anaesthetist at Bethany Hospital. It saves the time of an extra person to hold the tongue in position and is a great aid in the removal of tonsils. The fossa then is gone over with suction tube to stimulate bleeding and will open up any small vessels which might open afterward, due to vomiting or clearing of the throat, which we have found will cut down the percentage of post operative bleeding. The field is then sponged until dry, and examination is made of the infra tonsillar triangle to see that all lymphoid tissues have been removed; as much time is taken for examination and control of all bleeding as is required in the removal of the tonsils, the patient comes out of the anaesthetic as the work is completed; occasionally a forcep is used to grasp the folds of the membrane to see that all of the masses have been removed, if not it is necessary to reapply the snare wire and completely remove same. A good way to check ones self on tonsillectomies is to ask the question, How many times do I injure the posterior pillar especially at the superior portion? Pillars should always be left as found and should never contract to such degree that their movement is impaired.

The use of the Sluder or Beck method will not remove the lymphoid masses at the base, but after the use of the Sluder instrument the masses may be grasped with forceps and the snare wire applied, the fossa is left and will remain clean.

#### SUMMARY

We believe that lymphoid masses in the infra tonsillar triangle are a part of the tonsils and should be treated as such, for the complete cure of focal infection when due to diseased tonsils. Especial attention should be paid these masses in diagnostic work by use of a strong light with the aid of the magnifying lens. The small, and sometimes large fields, of infection can be demonstrated,



which without the removal we cannot promise a recovery and we find the redevelopment of the primary focus, the tonsils.

—R—

### **Glaucoma**

W. J. GROVE, M.D., Eureka

Read before the Lyon County Medical Society,  
October 5, 1922.

Glaucoma is the name applied to a disease the essential symptoms of which in its various manifestations depend upon increased intra-ocular tension.

#### **VARIETIES**

Systematic writers are accustomed to divide glaucoma into (1) *primary glaucoma*, which arises independently of clinical evident antecedent diseases of the eye and (2) *secondary glaucoma*, or that form which occurs as the sequel of a pre-existing ocular disease, often an inflammation of the uveal tract.

The primary may be divided into (1) *acute congestive* (acute inflammatory); (2) *sub-acute congestive* (glaucoma irritatif), chronic congestive; (3) *chronic non-congestive* (glaucoma simplex).

For clinical purposes it is convenient to retain these varieties, and their descriptive names, but in a certain sense the divisions are artificial because the one at any stage may take on a sudden change and assume the characteristics of the other and vice versa.

#### **SYMPTOMS**

While all symptoms are not constantly present in each variety yet there are certain well defined which are quite descriptively classical.

1. The old writers in classifying the degree of intra-ocular tension by the method of palpation could and doubtless were fairly accurate in recognizing the various degrees, as were the clinical observers in other lines of diagnosis.

Since the introduction of tonometers particularly the instrument of Schiötz the palpating or older crude methods have been replaced and the use of the tonometer has taken its place as a scientific instrument of advancement, and one is much more certain of his grounds—recognizing borderline cases.

2. The pupil may be round but not infrequently is oval with its long axis vertical; it may be semidilated, or expanded to its fullest extent; the iris is sluggish or may be entirely inactive.

The pupil dilatation is explained by paresis of ciliary nerves at the neuro-muscular junction or constriction of iris vessels, both may be a concomitant factor—partial atrophy of the pupil's lesser circle is not uncommon in acute attacks of intra-ocular tension.

3. In the congestive types a pronounced corneal haziness is quite perceptible whereas in the non-congestive types it is absent or only slightly present.

4. The sudden clearing of this haziness closely following or even during an iridectomy or trephining is often observed by the sudden drop of tension and reduced congestion.

Iritis and iridocyclitis may produce the same condition but often in association with a glaucoma complication.

The depth of the anterior chamber varies perceptibly from slight to a complete obliteration by a pushing forward of the lens system and iris periphery.

5. Iris changes are often quite marked, the edema also causes the pattern of the iris to become almost indistinct. We also see a haziness of the aqueous—the congestion may be so great that the dilated veins of the cornea may be the seat of small hemorrhages. Likewise opacities in the media may form and the lens even become cataractous.

6. In acute congestive type there are usually hyperemia and often edema of the conjunctival vessels, whereas in the non-congestive type you nearly always have a marked enlargement and tortuosity of the episcleral venous branches.

7. The excavation of the nerve head with a yellowish halo or glaucomatous ring is marked by the giving way of the nerve bundles—the lamina cribrosa recedes and the glaucomatous ring is produced.

The theories as to the actual pathology which produces the cup are still at variance, atrophy of the choroid, optic neuritis, etc.,

are among the unsettled causes. Even a degeneration of the nerve fibers according to Schnabel and not the tension is a cause, a cavernous atrophy of the optic nerve.

The cupping of the disk is seen with the ophthalmoscope, and the degree measured in dioptries or where not permissible by parallax by the indirect method. The entire eye ground seems to move but with the variation of the depth of the cup it moves in the same direction but slower.

The cup varies from one beginning to be pathologic to a full formed excavation, the latter is complete to the scleral margin and its edges are abrupt, the vessels crowded to the nasal side bend sharply over the margin and are lost to view behind the border of the cup reappearing in a fainter color at the bottom. The papilla is encircled by a yellowish ring due to atrophy of the surrounding choroid.

The study of physiologic cups and their types, some four or five in number, is a paramount necessity and when one is made familiar with them and their type, some blend and cannot be typed, yet when we have it in hand completely differentiated one may have no trouble in differentiating any type of physiological cup from a glaucomatous cup. The physiological cup is partial and formed in a normally tinted nerve-head; an atrophic excavation is complete, shallow and formed in a nerve-head of abnormal whiteness owing to its loss of capilarity; and a glaucomatous excavation is complete, deep, and often of a greenish or sky blue hue. Even then one must not depend upon the cup as a pure and paramount differential, but must fall back upon the history and other symptoms.

The pulsating veins might be mentioned but since this happens normally too much stress cannot be put upon this. Arterial pulsation is rare except in aortic diseases so is only noted in passing. Fox, although, emphasizes the latter.

#### SUBJECTIVE SIGNS

1. Pain. A severe neuralgia of the trigeminal distribution and often in violent congestive cases an intense agony often accompanied with nausea and vomiting. In sub-

acute attacks it is less marked and usually described as a headache unilateral from eyes back through temple.

2. Altered corneal sensibility varies from slight to complete as the edema is distributed.

3. Central visual acuteness varies considerably. In some chronic cases excellent visual acuteness may be preserved for a long time. It is well to keep this in mind, thus not depending upon central vision as a guide, yet as glaucoma comes on in attacks there is a subjective loss of vision and each successive attack is a subjective inventory of the gradual but sure loss of central vision as also can be noticed by the objective vision, yet in taking the vision frequently the patient soon becomes as familiar with a chart as one does mentally with the alphabet. This is also true with those chronic cases who use the illiterate chart so often in checking vision. The writer has noticed some can point out the direction more quickly and accurately than he himself can, thus one has to be careful here that they are not reading by memory instead of by sight. This is true in the clinics, perhaps because the patients return so often.

In each attack of subacute glaucoma there is a pronounced loss of vision which is gradually regained, but each leaves a more permanent impression. In a malignant type vision may be reduced to light perception and practically remains so in a few hours.

4. Alteration in refractive power and diminution of the amplitude of accommodation; the former depends upon the change of the cornea, the latter upon the pressure of the ciliary nerves, corneal alteration tends to produce astigmatism against the rule. This is evidenced by the fact the patients want frequent changes in their reading glasses to such as are stronger than their age would permit.

5. Alteration of peripheral vision. Perhaps there is no pathology in which the frequent field taking should manifest more than in checking up glaucoma. Both the patient and the physician are acutely perceptive of this phenomenon. It is the one great factor which surely marks the gradual degeneration of the optic nerve. The use of the tonometer



in measuring the tension and the perimeter in the field taking are the two routines with these patients which one should ever be on the alert at more or less frequent intervals. The pay patient is doubtless a little reluctant to come often enough as he psychologically assumes we are desirous of office fees, whereas the clinical patient's psychology is one of over due indulgence by his conspicuous presence and has a tendency to try the patience of the oculist. But it is a necessary and important inconvenience to both the patient and the physician. As glaucoma can be so malignant, rapid in its degree of onset and on the other hand frequent in its subacute attacks that time cannot be well lost for the safety of the patient's eye sight by a timely iridectomy or other operative procedure.

A contracted field and central scotomata are the two things to have well in mind for our prognostic guide. The technique of tonometry should be well in hand to control your patient's eyes direction and to have the base of the instrument centrally located on the cornea and lids not in contact with the instrument perpendicular.

The same care should be observed in the technique of field taking, proper light, proper position of patient and perimeter and to see he does not cast his eye out to observe the object. He no doubt becomes conscious of his inability to see colors and if not carefully checked in all the procedures, a wrong conclusion may easily be conceived both to the credit and discredit of the patient and chagrin of the physician in charge.

Glaucoma constitutes about one per cent of all blindness, hence its importance. It is said about one patient in ten as we meet them is glaucomatous. In this day of common refraction I doubt if that is the case. In large clinics this may be true. In connection with this phase of the subject I wish to call attention to a phenomenon, perhaps more nearly recognized since the more common use of the tonometer has come into play. It is said by the older authors that glaucoma is a disease recognized mostly in patients of 55 years

and upwards. This brings to mind that the writer, while doing extensive clinical work and especially while doing duty on the glaucoma service in the Illinois Eye and Ear Infirmary, met with many cases of *increased tension* and these were not of 55 years of age and upward, but of 35 years of age and upward. This phase has been discussed with much lively consideration from time to time in the Chicago Ophthalmological Society. These cases do not have, or appear to progress with, apparent contracted fields or if so they fail to develop the glaucomatous cup, yet they have the headache, more or less lessened vision, apparently no enlargement of the blind spot or if central scotoma be present they do not appear to be permanent as were observed by older writers, perhaps prior to the age of the tonometer. Many clinicians are pleased to class these not as glaucoma per se but cases of plus-tension. Many treatments and so on follow. The hypoconjunctival injection of adrenalin causes their decrease. No doubt since the endocrine system is at fault as we are now at the pinnacle of its discussion and accusation or a pan-pathological process when no other etiology can be found.

As Dr. Sippy says, "We are learning in medicine fast and if within the next thousand years we progress as we have in the last fifty years we will know a lot," which is now simply geology with clinics, anticlines, etc. as is so prevalent now in the oil game.

Be the etiology what it may, yet, I call your attention to this type of plus tension, shall we call it glaucoma. As Sippy pleases to write the symptomatology of gastric ulcer or other stomach cases so in glaucoma it might be well to call your attention by way of review to the various types and syndromes so as to keep this subject in our minds. The general practitioner may or may not be interested in the discussion, but this trouble is one that should be familiar with to recognize the common symptoms so he can pass the patient early, to try and save his sight. Thus in so doing he has rendered a kindly service to that part of his clientele.

## CLASSES OF GLAUCOMA AND COMMON SYMPTOMATOLOGY

*Congenital.* Classified into simple glaucoma and *buphthalmos*. Thus we can readily assume that glaucoma is prevalent in the very young as well as past middle or old age. Buphthalmos eyes attain enormous size sometimes.

*Primary Glaucoma.*

*Inflammatory Glaucoma.* It is in this type that an early iridectomy is seen to do so much good, more perhaps than any other type

*Chronic Glaucoma.* Bear in mind the attacks. In the congestive types where we have a mixed injection rather than the classical ciliary injection these cases are so often diagnosed conjunctivitis by the general practitioner and treated as such during much valuable time wherein we can do so much good by an early iridectomy. Strange to say, so many attacks of glaucoma come on at night. *Glaucoma absolutum* or the terminal state of acute glaucoma. The sharp lines of distinction between the types and the separation of the stages is one which is rather hard to absolutely differentiate. Absolute blindness may be taken as an indication of its presence together with increased tension even in the absence of pain or any manifest congestion. *Glaucoma Fulminans*—that type less manifest by none or few premonitory symptoms, this type is of the shortest duration.

*To Recapitulate.* To recognize glaucoma one should make a routine of general classification of observed symptoms both subjective and objective, particularly the vision and tension. Tension by palpation may do as a routine, but is like attempting to say that pain is caused by a condition absolutely local or extremely remote. We used to run tests in the clinic, each take the tension, close our eyes and hold up our respective right or left hands indicating the eye with the higher tension. Strange to say you would be amazed to see the variations some even indicating the wrong eye where even the tonometer registered 40.

## THE TREATMENT OF GLAUCOMA

The various operations of choice are among the surest. The classical iridectomy no doubt

is the one of most choice. Trephining the next which is limited more largely to older folk because of subsequent eye injury from pressure, bumps, etc. Some state that the trephine becomes filled or blocked by exudate as is shown histopathologically.

Iridectomy may be condemned likewise but an iris adherent to the cornea preventing a deep iridectomy and obtaining an ideal filtration result is no discredit to the operation.

Paracentesis, sclerotomy, sympathectomy, cyclodialysis, all are measures but of short and doubtful dependable features.

Finally removal of the lens or an enucleation may be a last resort.

*The Non-Operative Treatment.* It is surprising to see the good and maintenance of lowered tension by the use of miotics. Their consideration and use should be very carefully weighed. Their use is absolute both prior or subsequent to operative procedures. I am a believer in the weaker and more oft repeated dose. Pilocarpine and esserine are our mainstays. A glaucoma complicated with a profound uveitis as of luetic origin are the types in which even in the face of high tension, to use mydriatics, atropine is the drug par excellence to use, thus contrary to the general use of mydriatics. Of course in addition systemic treatment should be of paramount issue. These types are manifest by the flaking of the posterior corneal layer. They may be highly active or extremely passive and a manifestation of immense quantity of floaters in the vitreous. The prognosis is bad. Glaucoma usually ends in blindness with many phases, from a nonatrophied stony hard eye to the most shrunken phthisis bulbi type together with all the intervening varieties which occur and especially of the secondary type.

There may be much to learn of glaucoma yet. Perhaps like syphilis, for so many years we recognized it, treated it but after the treponema pallidum was discovered to be its etiological factor and Salvarsan and its concomitants came fourth as specifics, we still hold to potassium iodide and mercury as adjuvants.



With the Wassermann and its varieties as concomitant diagnostic helps, the advance in the treatment of lues has taken a decided scientific step forward. Such a factor may be discovered to cause glaucoma and a synthetic type of treatment discovered. Maybe we hope for the day even in our generation.

—R—

### The Stricture of the Ureter

ROBERT B. STEWART, M.D., Topeka

Stricture of the ureter, or narrowing of the ureteral lumen due to intrinsic inflammatory changes in the ureter wall is a condition of greater importance than the literature of our previous experience has led us to believe.

In fact, stricture of the ureter is one of the frequent lesions of the abdominal cavity and it is quite probable that symptoms due to this condition lead to many errors in abdominal diagnosis and many ill advised and unnecessary abdominal and pelvic operations.

The ureter may be the location of inflammation of gonorrheal, tuberculous, or focal origin. The ureter may be injured by the passage or impact of stone; or the outlet may be constricted by pathological processes in the bladder resulting in cicatricial contraction at the ureter orifice.

Strictures of the ureter are found at the point of crossing the iliac vessels, in the broad ligament portion, in women, and at the orifice. By far the largest number of strictures occur in women and are located in the broad ligament portion of the ureter.

The case which I will report is of the type less commonly met with, that of stricture occurring at the orifice of the ureter in a male patient.

Case No. 12299, a farmer, married and 36 years of age.

**COMPLAINT:** Repeated attacks, at intervals of one to two weeks, of severe pain, located in the lower left abdominal quadrant, relieved by vomiting. The attacks are of three years' duration. Occasionally has some pain on urination and arises once or twice at night to urinate.

**FAMILY HISTORY:** Reveals nothing of importance.

**PERSONAL HISTORY:** Born in Kansas. Educated in common country school. Has always resided in his present location. Married at the age of 26, and has three living, healthy children. Previous illnesses, measles in childhood and influenza in 1918. Denies venereal infection. No operations; no accidents.

**PHYSICAL EXAMINATION:** A tall, large framed, but under-nourished male, appearing older than his given age. Temperature and pulse normal. Blood pressure, 130 mm. systolic, 90 mm. diastolic. A general physical examination reveals no positive findings whatever.

**CYSTOSCOPIC EXAMINATION:** The meatus is so small that it is necessary to incise it to introduce the cystoscope. The cystoscope encounters an obstruction in the membranous portion of the urethra but by gentle manipulation the instrument is easily passed into the bladder. Observing the obstruction through the cystoscope it was found to be a cicatricial contraction at the site of what was a former area of infection. The urine in the bladder was collected in a sterile bottle for bacteriological and routine examination.

Within the bladder the right lobe of the prostate is seen to be slightly enlarged. The bladder is very large and a mild degree of chronic cystitis exists. The right ureter orifice is small, there is a normal spurt of urine, and the catheter passes with some difficulty at first in gaining entrance. The left ureter orifice is so small that it resembles the point of a pin, in size. The entire vesicle portion of the ureter stands out distended and dilated in the region of its orifice. To enter the left ureter it is necessary to introduce the smallest bougie, after which a small catheter is passed, without resistance, to the pelvis of the kidney. Both the catheters being in place, the cystoscope is removed and the urine is collected from the kidneys in separate bottles. After the urine is obtained in sufficient amounts for examinations, the differential renal function test is carried out, using the phenolsulphonephthalein test. Following the

function tests the x-ray exposures are made with the catheters still in the ureters.

LABORATORY REPORTS: The P. S. T. test is given intravenously and appeared from the right kidney in  $4\frac{1}{2}$  minutes and in 7 minutes from the left kidney. The right kidney excreted 8 per cent in 15 minutes and the left 10 per cent. Examinations of the catheterized specimens of urine; the bladder urine contained considerable pus, cultures from which gave colon bacilli. The urine from the right kidney was normal. The urine from the left kidney showed a large amount of pus; culture of which gave colon bacilli.

The guinea pig inoculation with urine from the left kidney, after four weeks, post-mortem showed only one small gray soft spot on the kidney cortex. No other spots or nodules found on the kidneys, peritoneum, mesenteries; nothing in the lungs. There is no evidence of tuberculosis in the guinea pig. The Wassermann test was negative. Nothing abnormal in the blood count.

Reports from the x-ray laboratory; x-ray of colon with opaque enema, gives no evidence of new growths, diverticulitis or other abnormalities. The sigmoid is very long and shows a complete circle. X-ray of the kidneys; there is no evidence of stone in either kidney, ureters or bladder. The kidneys are both of normal size and position.

Diagnosis: Stricture of the left ureter orifice. Stricture of large caliber in the membranous portion of the urethra.

The treatment of stricture of the ureter of this type is dilatation with bougies through the operating cystoscope.

After the opening is sufficiently enlarged the metal dilator of Bransford Lewis may be introduced through the cystoscope and wide stretching accomplished.

Since the patient was admitted to the hospital on September 5th the strictural ureter has been dilated three times at intervals of two to three weeks. There has been no attacks of pain since the first treatment. The pus has practically disappeared from the urine.

Conclusions: Stricture of the ureter is a

condition which should be thought of in searching for the cause of abdominal pain. It is considered by some observers to be more commonly met with than is ureteral stone.

The urine may or may not contain pus; there may or may not be infection above the stricture.

The history, the general diagnostic survey, including urine examination, blood examination, cystoscopic examination, with ureteral catheterization, and x-ray, these agencies should be at the command of the surgeon upon whom the responsibility of a diagnosis must rest.

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### Food Sensitization in Infancy

H. L. DWYER, M.D., Kansas City, Kan.

Read before the Northeast Kansas Society at Atchison, October 26.

Generally speaking, the diet of the nursing mother is passed over lightly and she is usually allowed to eat whatever agrees with her. If any restrictions are made it is with a view of preventing intestinal upsets in the mother, and not because it would bring harm to the baby. Some writers have cautioned against the taking of highly seasoned food, salads and certain vegetables because they seemed to give discomfort to the baby.

The recent work of Duke in directing attention to food allergy as a cause of abdominal pain has given impetus to investigations on colic in the infant.

O'Keefe found that breast fed babies with eczema gave positive skin tests to proteins that they never had eaten. It was he who first suggested that a biological investigation might identify proteins in the breast milk, that were being ingested by the mother.

Shannon has demonstrated that this assumption of O'Keefe was true, with reference to egg protein and states that other food proteins are probably transmitted by the breast milk. Three guinea pigs were given an injection of egg solution to sensitize them. After two weeks they were given an intraperitoneal injection of 3 c. c. of milk from a mother who had eaten no eggs for a period of ten days. Nothing unusual occurred in the animals. He



then had the mother eat two eggs each day for three days. Then some of her milk was injected into sensitized guinea pigs and they immediately became ill with nervous irritability, severe dyspnoea, paralysis of the hind legs and death within seven hours. Other experiments were carried out, using breast milk from mothers who had eaten eggs to sensitize the animal and a solution of egg white two weeks later when injected intraperitoneally would produce anaphylaxis. When milk was used from mothers eating no eggs, no such phenomena would occur.

Thus, the same reactions were found to take place in breast fed babies that we have known to occur on artificial food. It has long been known that the ingestion of certain proteins to which the individual is sensitive will produce respiratory manifestations and skin eruptions. But a large field of clinical study is opened up, especially in the disorders of infants, with the knowledge that food allergy will produce colic with the attendant digestive disorders, and that the breast-milk will transmit these offending substances.

In the bronchial asthma which is much more common in the older children the *epidermal* proteins are the common offenders. But in the infant where eczema and colic pain is so common the egg protein is the one which gives us most concern.

The few observations that I have made on this subject are illustrated in the following cases:

Case 1. Baby 11 months old. Bottle-fed since 6 months of age. Consulted me for eczema on both cheeks. Had been under care of a capable dermatologist for eight weeks, and the condition has resisted all local treatment. The mother had given no egg to the baby in accordance with her physician's instructions. I prescribed Lassar's Paste with 1 per cent salicylic acid. That same night the mother informed me that the ointment irritated the baby so much that it cried with pain from 8 p. m. until well after midnight. I suspected that instead of the ointment giving trouble that it was the result of abdominal pain due to some protein that also was

responsible for the eczema. The baby was tested on the following day with many proteins but reacted to egg-white only. Upon questioning the mother I learned that the child was given ice cream during the evening of its trouble. She was more carefully instructed with regard to foods made with egg and was told to continue the ointment, and the eczema had practically disappeared in one week.

Case 2. Baby 7 weeks old. Breast-fed. She was being nursed every three hours. There was a great deal of colic, gas and frequent curdy stools. The mother was eating two eggs for lunch every day. Skin tests on the baby gave positive reaction to egg. The mother was instructed to omit eggs from the diet and no other change was made. In four days the colic had almost entirely disappeared and the stools were normal in one week.

Case 3. This baby was seen before I knew that the breast milk carried the protein of egg. The baby had colic from her second week of life. The stools were always fairly good with exception of a few upsets. Vomiting soon begun but was controlled with atropine. A change from three-hour nursing to four-hour nursing periods brought no relief. The colic was unusually severe and the infant slept very little in the daytime and awakened at frequent intervals throughout the night. The mother's diet was changed from time to time, empirically, usually with reference to vegetables and fruits. The baby gained satisfactorily. As nothing gave any relief, a feeding of cow's milk mixture was given instead of one breast feeding. Gradually more bottle feedings were supplemented for breast feedings with gradual improvement of all symptoms. About this time I noticed Shannon's work and decided to test this baby, a marked reaction to whole egg was obtained, but the baby was doing so well on the bottle that we did not care to go back to the breast. Although this baby's trouble was not proven to be due to egg allergy, it is very probable that such was the case, as the mother had always eaten eggs plentifully and the baby was later found to be very sensitive to egg.

Case 4. Breast-fed baby, eight weeks old, was having eczema colic, considerable gas, regurgitations, and 6 or 7 green curdy stools daily. This baby was being nursed at two-hour intervals and a solution of condensed milk given at times because it was thought the baby was hungry. This was discontinued and the nursing period changed to three hours. After a week there was very little improvement. The mother was on a liberal diet containing eggs, milk and meat. Skin tests on the baby gave protein reactions to egg and casein and doubtful reactions to beef, veal, potatoes and oatmeal. When the mother eliminated eggs and reduced her intake of milk one-half there was prompt relief from colic and improvement of the eczema.

These few observations will show how useful this work of food allergy as a cause of abdominal pain will be, and especially so when we know that the breast-milk transmits these foreign proteins. It is a common observation to find infants who have had a great deal of colic and other digestive disturbances while on the breast, and when changed to the bottle get complete relief. The mothers then get the impression that they cannot nurse because their milk is "not good" and weaning is quickly resorted to.

—R—

#### BELL MEMORIAL HOSPITAL CLINICS

##### Clinical Pathological Conference by H. R. Wahl

###### CHRONIC GLOMERULO-NEPHRITIS

The patient is a colored woman, age 55 who came into the hospital complaining of "painful tender stomach, weakness and shortness of breath." The patient gave a rather indefinite history as to the onset of this present illness. There has been severe frontal headaches for many years associated with dizziness and "spots before the eye." About a year ago the ankles began to swell. This swelling became so marked that six months ago the patient was unable to wear her shoes and at the same time the upper abdomen became very tender. Since then she has suffered a great deal from severe vomiting spells

and much shortness of breath. There has been considerable cough for the past year or more. There has also been considerable nocturia.

The physical examination showed very poor teeth with marked pyorrhoea alveolaris. The eyelids were distinctly puffy. The patient showed a rather marked Cheyne-Stokes breathing. The upper abdomen was distinctly tender. Both legs showed marked edema. There was considerable pulsation of the vessels in the neck. The heart was definitely enlarged. The blood pressure varied from 160 mm diastolic to 210 mm systolic. On some days the systolic blood pressure went as high as 240.

Shortly after the patient entered the hospital her condition became somewhat worse, she passed into a semi-comatose condition followed later by falling into a deep stupor. She died two weeks after entering the hospital. The urine was rather difficult to obtain, there being more or less marked incontinence. On several specimens that were obtained, however, there was found a moderate amount of albumen and some pus cells. No definite casts were found. The phenolsulphonephthalein test showed an excretion of only 71½% at the end of two hours. The concentration test for urine over a period of 24 hours showed a variation of only 5 points. Specific gravity was rather low. The blood picture showed a marked secondary anemia, the red count being a little over 3,000,000 the hemoglobin 80% and the white count 10,500. The urine output in the last few days before her death was very markedly diminished, though the intake was over 2,000 cc's, the output usually being less than 500 cc's.

The blood chemical studies are of some interest. The non-protein nitrogen was 41 when the patient entered the hospital and went to 70 shortly before death. The urea was 18 at first and at last it went up to 46. The Van Slyke CO<sub>2</sub> dropped from 59 to 21 shortly before death. (The normal is from 55 to 75.)

The clinical diagnosis was a chronic nephritis of the glomerular type. The clinicians regarded the Cheyne-Stokes breathing



as due not to uremia (because of the relatively low retention of nitrogenous products) but due to an edema affecting the brain and the medulla. During the course of this disease the intravenous administration of glucose (300 cc. of 25% solution) seemed to relieve the Cheyne-Stokes breathing. It is of some interest to speculate on the action of the glucose in relieving this type of breathing. One suggestion made was that this breathing was due to an edema of the brain and medullary centers which was relieved by the fact that intravenous injection of the concentrated glucose solution drew the fluid from the subdural spaces and in that way relieved the edema of the brain.

#### AUTOPSY

The body is that of a rather emaciated, small, colored woman apparently 50 years of age. The legs showed a moderate amount of edema. The external genitalia showed very marked edema. No marked edema was noted in the face. There was no excess of fluid in the peritoneal cavity. The right pleural cavity was entirely obliterated with adhesions. There was no excess of fluid in the left pleural cavity. The precordial space was markedly enlarged and the heart was considerably larger than is usual, weighing 445 grams. The hypertrophy in the heart was most marked on the left side, though the right side was also larger than is usual. The lungs showed a very marked emphysema and also considerable diffuse fibrosis throughout the lung substance. There were marked adhesions over the right lung. There were no consolidations though a few scattered fibrous nodules, evidently old healed tuberculous scars. In the hilum of the lungs there was some old caseous tuberculous nodules. Considerable sclerosis was noted in the pulmonary artery. Liver showed nothing abnormal. The spleen showed very marked atrophy, weighing only 35 grams. It showed much fibrosis.

The points of greatest interest in the autopsy findings are in the genitourinary tract. The right kidney is very much smaller than is normal. It weighs only 80 grams. It shows a normal amount of perirenal fat. It

feels very firm. The capsule strips off with a great resistance, leaving a very granular, reddened, congested and pitted surface. You will note at the lower pole there is an extra artery leading to it, arising directly from the aorta. In trying to cut this organ we find it cuts with great difficulty. The cut surface shows a very marked atrophy of the cortex. The boundary zone between the cortex and medulla is obscure. The glomeruli are indistinct. The pelvis and the ureter shows nothing abnormal. Then in passing over to the left kidney we find a still more remarkable change. This organ is very small. It weighs just 45 grams. (The normal kidney should weigh 150 grams.) It is very firm and hard in consistency. Its capsule is thickened and strips off with a great deal of resistance carrying some of the cortical substance with it. The surface is extremely roughened, ragged, irregular and granular. There are on the surface of the kidney also some very irregular and deep pitted scars suggesting old healed infarcts. In cutting into this organ an interesting picture is found. The cortex is very markedly atrophied, measuring only 1 to 2 mm in thickness (whereas normally it should be from 5 to 7 mm in thickness.) On opening the kidney we find it has two distinct pelves. On following these two down we find that there are two distinct ureters both of them passing down to the bladder and opening separately into the bladder. Neither one of these two ureters appear abnormal. In the kidneys the glomeruli cannot be distinguished, while normally they should appear as faint red dots on the surface of the cortex. Opening the bladder we find a small amount of very clouded turbid appearing urine. The mucosa of the bladder shows numerous small petechial hemorrhages. Hemorrhages that vary from 2 to 4 mm in diameter are scattered in patches and in groups over the surface. In addition, the mucosa has an irregular granular roughened surface suggesting beginning tubercles in many places. This granular appearance to the surface is particularly marked around the mouth of the urethra.

Examination of the brain and other organs was not permitted.

The histological examination in this particular case is especially interesting in connection with the kidney. The other organs not being worthy of especial mention except to note that there is a very marked diffuse fibrosis of the lungs as suspected in the gross. In the kidney there is a very marked and extensive diffuse fibrosis. In some places there are patches of dense fibrous tissue but the till more striking characteristic is the glomerular change. All stages of the glomerular change may be noted from diffuse cellular infiltration and fibrosis to complete hyaline transformation of the glomerular tufts. In many of these glomeruli there are pus cells and other leukocytes and considerable swelling and degeneration of the endothelial cells. In some places the blood vessel walls are thickened and the efferent artery is hyalinized or even thrombosed, while the remainder of the glomerulus appears more or less degenerated and necrotic. There is every evidence that there is here also an acute process superimposed upon a chronic. While the tubules also show some change these changes are probably secondary to the glomeruli connected to them. In summing up the autopsy findings we may say that the main lesion found was the very marked chronic nephritis representing the end stage in a chronic glomerulo-nephritis; there is a marked hypertrophy of the heart; a chronic adhesive pleurisy; chronic interstitial pneumonia; emphysema and anthracosis; atrophy of the spleen; and a chronic catarrhal gastritis; reduplication of left ureter and bladder.

An interesting fact worth noting in this case is that the autopsy findings closely parallel the clinical diagnosis as far as the kidney condition is concerned. The clinical suspicion that there was also a vascular element in addition to a glomerular one in the kidney is supported by the histological finding of rather extensive obliterative changes in many of the arteries. In some areas the picture suggests somewhat that of a chronic inter-

stitial nephritis rather than a chronic glomerulo-nephritis.

Several points are of interest in connection with this case. The first one is that of the etiology of these cases of chronic glomerulo nephritis. It is quite probable that all cases of glomerulo nephritis are infective in origin, that is, they are due to bacteria which have lodged repeatedly in the kidney and caused a chronic glomerular infection. The reason why these bacteria lodge in the glomeruli is because the glomerular tuft comprises the first small group of capillaries which the bacteria meet as they pass through the kidneys and naturally they will lodge at that place first and get their first foot hold there. These bacteria have probably come from a general focus of infection. In looking about the body for foci of infection two places were probable. Either the tonsils and much more so the teeth, which showed a very marked pyorrhoea alveolaris. It is quite likely that there were some apical abscesses causing a chronic discharge of bacilli into the circulation. In a general way it may be said that the bacterial infection of the kidney is usually glomerular and embolic in type, whereas toxins that are circulating in the blood such as mercury and metabolic poisons give rise rather to a tubular type of nephritis. This may be explained by the fact that the bacilli are caught in the glomeruli whereas the toxins escape and pass through to the convoluted tubules which are more readily injured by toxins than any other structure of the kidney.

Another point of some interest is the presence of multiple hemorrhages in the bladder. These hemorrhages were also associated with similar hemorrhages in the cortex of adrenal glands. These hemorrhages are frequently noticed in advanced cases of chronic nephritis and are probably due to the fact that the toxin in the blood accumulated there, because of the inability of the kidney to excrete the normal urinary constituents, gives rise to degenerated changes in the capillary endothelium, which increase the vessel permeability to the blood and red cells pass out much more readily than is usual. Then, there is another ex-



planation, that frequently in chronic nephritis thrombosis of many of the smaller veins occur. This venous thrombosis causes a stasis of the blood and leads to a diapedesis of the red blood cells. In fact, in this particular case, in the adrenal glands there were several multiple thromboses seen affecting the smaller veins.

The presence of two distinct ureters on the left side is of considerable interest. It is, however, simply a congenital malformation and is known to occur fairly frequently. The presence of an anomalous artery is also a very frequent finding being found perhaps in one of every five autopsies. This separate artery is of considerable importance to the surgeon because it may lead to a very unpleasant and embarrassing hemorrhage in cases where it is overlooked.

Another point of some interest is the association of the high blood pressure with the chronic nephritis. The cause for this is not very definitely known. It certainly is not due to the arterial changes in the kidney because vascular changes in the kidney cannot produce a general elevation in the blood pressure. It is much more likely probable that there is some common cause which leads to both, high blood pressure and to changes in the kidney. This factor may cause elevation of the blood pressure by chronic stimulation of the vasomotor apparatus. The origin of these pressor substances elevating the blood pressure has not been definitely determined. Whether it is renal in origin or whether it comes from some metabolic disturbances in the blood stream is still under dispute. There is no question, however, that the kidney condition and the high blood pressure is responsible for the marked hypertrophy of the heart. The marked shortness of breath which the patient had shortly before death is probably due to the myocardial weakening. This myocardial deficiency was undoubtedly enhanced by the fibrotic changes in the lungs, causing increased resistance to the pulmonary circulation, and additional strain on the right heart.

### The Roentgen Ray in Tonsillar Disease

The cases treated by roentgen-ray-therapy on which Francis L. Lederer, Chicago (*Journal A. M. A.*, Sept. 30, 1922), reports were those representing every type of tonsillar disease, and in patients of varying ages. In no case have any marked changes been observed, and only in children with the typical hypertrophied tonsils has even a slight change in size been noted. Patients with infected tonsils with the usual recurrent attacks of tonsillitis were seemingly benefited for a period, only to have a recurrence of the attack. These cryptic tonsils, with the usual infectious material which they harbor, were controlled bacteriologically and found not to have been affected by the roentgen ray. The type of tonsil which has, through disease and age, undergone a fibrosis is but little affected by this therapy. Encouraging results have been obtained not so much objectively as from the alleviation of subjective symptoms, in that type of child whose larynx is filled with lymphoid hyperplasia. The procedure, therefore, is not without some danger.

—R—

### American Synthetics

The Fordney-McCumber tariff bill recently passed by Congress, unfortunately does not provide sufficient protection for American-made medicinal chemicals, nor does it compensate for the extensive research work which has been done by American chemists.

The rates on medicinal chemicals were passed over the protest of the medical profession. It is now possible for the physicians to follow up their protest by using only American-made synthetics, and referring to them, at all times, by their American names, as suggested by the Council on Pharmacy and Chemistry of the American Medical Association.

Among the important American-made medicinals which should receive the support of all American doctors, are Arsphenamine, Barbitol, Cinchophen and Procaine. Literature on these products may be obtained by writing to The Abbott Laboratories, Chicago.

# THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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## As Others See Us

The ubiquitous individual, whose idea of philanthropy is the spending of other people's money in any good cause that will mostly benefit himself, is likely to be suspicious of the motives of a real philanthropist. This individual has never had an unselfish thought and can conceive of such a thought only in an unbalanced mind. He reads the character of men in a looking glass and ascribes to others the motives that actuate himself.

He is ubiquitous and polymorphous. He is a politician, a religionist, a propagandist—but always an obstructonist. Constitutionally opposed to progress, he organizes himself and his kind into cliques and clans and leagues for the purpose of obstructing all but his own roads to prosperity, and for the purpose of preventing, at least hindering, all efforts for the benefit of humanity by those whose altruistic motives his narrowed and self centered intellect cannot comprehend.

His hostility is aroused at the suggestion of cruelty to animals, and he is horrified to learn that rabbits are sometimes used in the laboratory in trying to discover a safe means for protecting his child against dangerous infections; but he will tramp all day in the snow hoping to catch one of the innocent

creatures out looking for food so that he may fill its body full of pellets of lead.

In the guise of an organized protest against prophylactic inoculations, vaccinations and all the health regulations for the prevention of disease, he launches a "League of Medical Freedom" and attempts to drag the medical profession into politics in their effort to protect the people against their own misfortunes and the results of their own folly and their own ignorance.

Here is a sample of the literature (?) which this so-called organization tries to inveigle the newspapers into publishing.

"The 'political doctors' are members of the A. M. A. who are in a political conspiracy to get business by 'lawful' means—that is, getting laws passed which give them 'police power' to go after business and enforce their wishes, and who, through these laws and health departments, not only squander tax monies, but by constant threats of epidemics scare the public into the purchase of serums, vaccines, and anti-toxins, many of them not only useless but decidedly harmful. The serum manufacturers are simply charged with shrewd business in pushing their wares by graft methods."

In another part of this document it is stated that "questionnaires were sent out to all state candidates and as a result the Association has endorsed the Democratic candidate for governor." This is intended to imply that he indorsed their principles. If it were not too late to be of any service in the campaign we would challenge them to produce any such evidence of mental deterioration in the Democratic candidate for governor. Should he, by any chance, be elected one can imagine his humiliation at such claims as that. However, such efforts to make a party issue of disease prevention are absurd.

For some unknown reason, during the past few years the medical profession has been credited with an enormous political influence. In a book recently published "organized medicine" is given credit for the adoption of the Volstead law. It is positively stated that "organized medicine" had 60,000 agents in the field working for the amendment.



No doubt there are people who believe these things and some of us may even wish that this imaginary power really belonged to organized medicine. When we know how almost impossible it is to get a legislative body in this state to pass laws providing that only those who can prove themselves competent to do so shall practice the healing art, we wish that even a little of this boasted influence were really ours. The history of medical legislation in this and other states shows how mistaken are the claims of these propagandists, for the experience has been practically the same in all the states. As soon as a satisfactory law has been adopted and become effective, special cults have been created and laws adopted for their particular benefit so that our practice acts have been practically nullified.

History has been repeating itself, however, in the matter of cults. They are usually founded upon some theoretical conception of disease or some particular method of treatment, and, offering a short road to professional honors (?) usually secure a large and enthusiastic following. The more intelligent of these soon recognize their deficiencies and demand more and larger knowledge. When their education and training reaches a sufficient point they drop their restrictions and are absorbed in the ranks of medicine. Cults which do not adopt the progressive course soon die out from inanition. But in the place of those that are absorbed or decay, others are being formed and so it will continue to be until the people are ready to demand proper qualifications in those who are licensed to treat their ills.

It is by no means a hopeless outlook. People are being gradually educated in matters of disease prevention. People are awakening to the possibilities along this line and are greedy for instruction. The various departments of the Public Health are making a very marked impression. Parents are being told by their children in the public schools many of the hygienic rules taught there, and nurses are disseminating knowledge to women of the households in groups and classes. In a short

time these people will demand that the police power of the state be effectively exercised in the regulation of the healing art.

In the meantime the medical profession has less need for political influence than for more knowledge and more skill in the performance of its legitimate function, the healing of the sick.

### —R— CHIPS

The number of deaths from cancer each year in the United States is estimated to be 72,291.

"Vitamode is a new science whereby the dead may be brought back to life, provided the organs of the body are not worn out." This will enable a man to die twice in a life time. But why will a man want to die twice? Unless he wants to read his obituary.

The germicide in the tear is said to be "Lysozyme." When flowing tears scald there is an excess of lysozyme.

Sleep is not restful or refreshing when one awakes in a stupor. The condition is caused, as a rule, from overeating. Too much fuel in the firebox has smothered the vis a tergo.

Message by Radio: A Swiss scientist asserts that all life is a series of vibrations. The organs of the body function by vibrations and so this professor has devised a mechanism by which massage can be administered by wireless to patients who are too delicate or tender to be treated in any other way. The next number on the program will be a Swedish movement by Christine Wilson, the eminent masseuse. (L. A. Times.)

When the infant is tossing or rolling its head from side to side and crying out in pain, and there may be a little elevation in temperature and quickening of the pulse, fill the ear with as warm water as will not burn the tender skin, turn the head and let the water run out in a minute or two, repeat a few times and if the child quiets each time and shows relief, it is earache—inflammation of the middle ear—and not meningitis.

An experiment is reported on a criminal in

which he was permitted to breathe sterilized air and to eat sterilized food only. He sickened and died in a few months. This goes to prove that germs are as essential to life as they are to death.

Science is a therapeutic agent. But few physicians know when to prescribe it or the length of time of the seance to meet the exigency.

Mothers are told to not let the infant lie too long in one position. Nurses are taught to have or change the position of the patient frequently, in low or long continued fevers. The same rule holds good in the treatment of the aged and invalids. In fact it is a health measure for health, as well as a preventive of disease.

A leader in the dental world says that a dentrifice should have an acid reaction instead of an alkaline reaction. Heretofore it has been believed and acted upon that a tooth powder or mouth wash should have an alkaline reaction. The acid stimulates the flow of alkaline saliva. Maybe so. The reverse of such reaction takes place in the stomach an alkaline increasing the flow of gastric juice.

Paton and Rowand (*Lancet* Oct. 11) reporting on the x-ray findings in the chests of 12 healthy infants ranging in age from 8 days to 15 weeks state that "all cases examined showed definite shadowing, not homogenous, within an area extending from the fifth to the eight ribs, and bounded externally by a semi-lunar line extending outwards, at the level of the sixth or seventh ribs about three-sevenths of the total from the middle line to the circumference of the chest. This area contains the root of the lung. All cases show in varying degree linear shadows, sometimes definitely arborescent, radiating from this area. The shadows seen represent structures in the healthy lung and are not due to pathological change.

Malyneux claims excellent results in the treatment of tuberculous glands with radium (*Lancet* Oct. 11). He uses a 2 cm square ap-

plicator with 15 mg or radium bromide. It is covered with a layer of silver, a layer of lint and two layers of gutta-percha, by which means he is able to absorb all of the alpha and beta rays. Applications are made twice a week at first, when the glands are subsiding, once a week. His claim is that this is not a destructive dose of radium, but a stimulating dose, which stimulates the tissues and enables the vitalized phagocytes to consume the tubercle bacilli and help the absorption of the caseating material.

Sir Clifford Allbutt, in an address at St. George's Hospital Medical School, suggested that "the construction of the Panama Canal depended upon the curiosity of Manson and Ross about the guts of a mosquito."

Since the discovery of the important role of the pancreas in carbohydrate metabolism in the body there have been many attempts to supply the missing "regulator" of sugar combustion and attention has naturally been centered on the pancreas in this connection. Significant results have been secured in the Department of Physiology at the University of Toronto by J. J. R. Masleod and his collaborators. An alcoholic extract of pancreas has been prepared which apparently enabled the diabetic animal and man to metabolize sugar better. The investigators are wisely withholding the product from general use until its value is definitely established. (*Jour. A. M. A.*, Oct. 21, 1922, p. 1428.)

The practice of medicine is becoming too complex. It takes too many doctors to make a mistake. When several doctors are called in consultation to see a patient the death of the patient follows too often.

One reason for the quick demise is the serious condition of the patient which had been recognized by the attending physician and his desire to have other physicians to share the responsibility. Again, no two doctors see the same thing from the same standpoint and the consultant may see enough to satisfy the patient and friends in case of death. Of course there may be a disagreement but it is usually limited to the circle.



If there is a dominating spirit among the consultants and he is a good theorist and talker, he, too often, has his way and it is generally the wrong way. If the case looks to be hopeless to be an agreeable consultant is a desideratum.

Specialism has a big percentage of mistakes chalked up to its account. It is not the purpose of these remarks to find fault with the specialist or to criticize him unduly but to call his attention to the fact that concentration of study and effort on one organ or system of the human body has a tendency to limit his knowledge of the body as a whole and run his mind on a mono-track. (P.)

The Reactions of Boston to the "Reactions" of Abrams.—Abrams gave a clinical demonstration of his methods in the laboratory of one of his disciples in Boston. Abrams refused to submit the method, it is said, to any test offered, but confined himself to demonstrating the presence of lesions the existence of which could be proved only by postmortem examination. A member of the staff of the Boston Medical and Surgical Journal, a man in perfect health, was selected for experiment. By his diagnostic methods Abrams discovered in this healthy individual a streptococcus infection, tuberculosis of the intestinal tract, congenital syphilis and intestinal sarcoma. Otherwise the man was alright. It is understood that the volunteer inconsiderately refused to submit to a postmortem examination. (Jour. A. M. A., Oct. 28, 1922, p. 1524.)

Twenty-five years ago various mineral springs and waters were claimed to have therapeutic virtues because of lithium content. Today we know that the amount of lithium in natural waters is insignificant, and that lithium is of no therapeutic value anyway. At the present time, many mineral waters are exploited because of their asserted content of radium. However, the rationale of the internal administration of radium is being doubted. Also, relative traces of radio-active substances are practically valueless and the Council on Pharmacy and Chemistry will not accept any radium solution for internal use the dosage

of which is less than two micrograms each day or any radium emanation generator which yields less than two microcuries emanation each twenty-four hours. The probable value of radioactive mineral waters may be judged when it is known that it would be necessary to consume 2,810 gallons daily of the water yielding the largest quantity of temporary radio activity in order to obtain the minimum therapeutic dose of two microcuries emanation and that the best water available as regards radium content would require the administration of 1,957 gallons per day in order to obtain 2 micrograms of radium. (Jour. A. M. A., Oct. 14, 1922, p. 1339.)

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## SOCIETIES

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### WILSON COUNTY SOCIETY

The Wilson County Medical Society met at the Gold Dust Hotel, Fredonia, Monday evening and after a 7 o'clock dinner, assembled in the hotel parlor where the regular meeting took place.

This was the first of our regular monthly meetings and as monthly meetings are such a departure from the usual, for a small society, we were well pleased with the attendance and interest.

The society decided to have a public meeting in November during the "Cancer prevention" week, and the secretary was instructed to get in touch with Doctor Crumbine regarding a speaker. This meeting will be held in Neodesha as that is our next regular meeting place.

We expect to take advantage of the excellent list of men recommended by the State University for our out-of-town speakers at our meetings this winter.

We would like to hear from any other small society that has been having monthly meetings successfully.

E. C. Duncon, Sec.

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### STAFFORD COUNTY

Society met in St. John at 3 p. m., October 11. Members present, W. L. Butler, T. W.

Scott, Stafford; M. M. Hart, Macksville; C. S. Adams, L. E. Mock, J. T. Scott, St. John. Dr. Bundrant of Pawnee Rock, Dr. Jenkins of Pratt and Miss Anna Westman of Stafford, Red Cross nurse for the east half of Stafford county, were visitors.

Dr. C. S. Adams read a paper on Extra-Uterine Pregnancy and dwelt particularly upon the symptoms for the reason, as he stated, that early diagnosis was all important and should in all cases be followed by immediate operation.

Dr. Bundrant and Dr. Jenkins made short talks and complimented the society on the attendance and interest manifested. Miss Westman also expressed her appreciation of the invitation to attend the meetings of the society. Adjourned to meet in St. John Wednesday, November 8.

J. T. Scott, Sec.

#### SHAWNEE COUNTY SOCIETY

##### RESOLUTIONS

Dr. Elnora Gilson Whitmore was born in Bedford, Pa., fifty-six years ago. She died after a three years' illness at her home in Topeka, August the nineteenth, of pernicious anemia. Dr. Whitmore's life covered an especially interesting era in medicine, particularly in the development of professional education for women. She was graduated from the first high school class in Marysville, Kan., at a time when a high school education was not a stepping stone to the professions. It was then a "higher" education of itself. Men entered seven month courses in many medical schools at that time with less than a grade school foundation. Few institutions of any sort accepted women.

Dr. Whitmore was graduated from the Women's Medical College, Northwestern University Chicago, eighteen ninety-five. She served a year's internship in Mary Thompson Hospital, then one of the less than a dozen hospitals open to women physicians, and continued at the same place as house physician for another two years. Her unselfish devotion to an invalid mother caused her to locate in Blue Rapids, Kan., where she prac-

ticed a few years but ultimately accepted the position of supreme medical examiner for the Royal Neighbors of America. This position she held for twenty years, and exchanged only last year for that of supreme receiver for the same order.

Dr. Whitmore's fine womanly character, innate modesty, kindness and unselfishness made her the beloved friend, sister, daughter and wife. She leaves her husband, Mr. A. J. Whitmore, her father, W. A. Gilson, of Denver, and her brother, Dr. S. W. Gilson of Blue Rapids.

Your committee subscribing themselves below would conclude this memorial by proposing the following resolution:

That the Shawnee County Medical Society, in regular meeting assembled, express its sorrow in the death of Dr. Elnora Gilson Whitmore and extend its sincere sympathy and condolence to the bereaved husband and relatives.

Elvenor Willson Ernest.

Sarah Greenfield Stephenson.

#### RENO COUNTY SOCIETY

Society meeting, of the Reno County Medical Society at Hutchinson, October 10. This was the first session of the monthly meetings. No meetings being held during the summer months.

Dr. H. M. Stewart had charge of the scientific meeting and Dr. Harry Blaisdell, formerly of the Bernard Free Skin Cancer Hospital of St. Louis, gave a very instructive paper on the Diagnosis and Treatment of Malignant Growths. The paper was given to our county society for our meeting cancer week.

A very good representation of the doctors of the county attended the meeting. A free discussion followed the paper.

Dr. Blaisdell knows the present status of cancer well, and the meeting was highly instructive and one of the best we have had for a long time.

Our county society is very desirous of accepting the State University's aid in procuring some good men to give us lectures on va-



rious subjects in our meetings. We think this a step forward, and believe the county societies would be greatly benefited by having these men discuss various subjects at their meetings.

C. D. McKeown, Sec.

#### CENTRAL KANSAS MEDICAL SOCIETY

The third quarterly meeting of the Central Kansas Medical Society was held at St. Anthony's Hospital, Hays, Kan., Thursday, Oct. 26. As the weather was very favorable there was a large attendance of the members as well as visitors from the surrounding societies.

President Stoner called the meeting to order at 1 p. m., and ordered the business meeting put off until the evening session and proceeded with the following program that was prepared for the members.

#### Acute Appendicitis:

Medical Aspect, J. B. Carter, Wilson.

Discussion Opened by R. E. Teal, Palco.

Surgical Aspect, C. D. Blake, Hays.

Discussion Opened by O. A. Hennerich, Hays.

#### Diseases of the Gall Bladder:

Medical Aspect, F. K. Meade, Hays.

Discussion Opened by F. S. Hawes, Russell.

Surgical Aspect, J. H. Jameson, Hays.

Discussion Opened by L. O. Nordstrom, Salina.

This proved to be two very interesting subjects and brought out a good deal of discussion from all the members present.

Dr. J. B. Betthausen then showed a medical clinical case that was pre-ented to the meeting for diagnosis. This with other clinical cases proved very interesting. Rev. Faupell then read a paper on Birth Control.

The meeting was adjourned at 4:30 p. m. to allow the doctors to play off the golf tournament that the Hays doctors had planned for them.

Immediately following the banquet at the Hotel Brunswick, the members adjourned to the K. of C. hall where the main paper of the evening was read, Diagnosis and Treatment of Cancer of the Skin by Richard Sutton, Kansas City, Mo., illustrated with lan-

tern slides. This was thoroughly enjoyed by all present and following the paper Dr. Sutton was given a rising vote of thanks by the members and invited to meet the society again at some future date.

The following new members were admitted to the society: Drs. Chas. F. Little, Hays; T. E. McCormick, Plainville; V. R. Parker, Natoma; R. E. Stivinson, McCracken.

The following members answered the roll call: Dr. Hissem, Ellsworth; Drs. Stewart, Cramm, Koerber, Hawes, Russell; Drs. J. B. Carter, Turgeon, Wilson; Dr. E. A. Miller, Bunkerhill; Dr. Anderson, Victoria; Dr. Stoner, Ellis; Dr. Butler, Winona; Dr. Teal, Palco; Dr. Herrick, Wakeeney; Dr. Stivinson, McCracken; Dr. McCormick, Plainville. Dr. Parker, Natoma.

The following visitors were present: Dr. Richard Sutton, Kansas City, Mo.; Dr. L. O. Nordstrom, Salina; Dr. Albers, Chicago; Drs. Hennerich, Jameson, Meade, Blake, Unrein, Little, Betthausen, Hays; W. J. Keough, D.D.S., McCracken; Rev. Faupell, Russell.

L. V. TURGEON, M.D.

Sec.-Treas.

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#### BOOKS

Lectures on dietetics. By Max Einhorn, M. D., Emeritus Professor of Medicine at the New York Post Graduate Medical School and Hospital; visiting physician to the Lenox Hill Hospital, New York. 12mo of 244 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$2.25 net.

In this edition several new chapters have been added. The care of digestion, the dietetic management and Allen treatment of diabetes, the dietetic management of gout, diet in diseases of the kidneys, diet in operative cases, subcutaneous and rectal alimentation, indications for artificial nutrition, preparation of food for invalids. The book has been practically doubled in size.

An Outline of the Pirquet System of Nutrition. By Dr. Clemens Pirquet, Professor of Pediatrics at the University of Vienna, Austria. 16mo of 96 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$2.00 net.

In this volume the author has reduced his system to a mathematical basis. It is a much

condensed epitome of his lectures on this subject at Yale. He has introduced a new basis for the estimation of normal weights. He has found that the sitting height of the trunk corresponds very closely to the cube root of the body weight.

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The Treatment of Fractures: With Notes Upon a Few Common Dislocations. By Charles L. Scudder, M. D., Assistant Professor of Surgery at the Harvard Medical School. Ninth Edition revised. Octavo volume of 749 pages, with 1,252 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Polished Buckram, 8.50.

Scudder has so long been an accepted authority on fractures that his textbooks are regarded in the same manner as Webster's dictionary. We want the latest edition. There are many changes in the ninth edition because the treatment of fractures has been almost revolutionized since the great war. All of the improvements determined by that great experience are included in this new edition.

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Clinical Medicine, Tuesday Clinics at the Johns Hopkins Hospital. By Lewellys F. Barker, M. D., L. L. D., Professor of Medicine, Emeritus, Johns Hopkins University; Visiting Physician to Johns Hopkins Hospital, Baltimore, Md. Octavo of 617 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, 7.00 net.

This consists of a series of clinical lectures by Dr. Barker. This is all that is necessary to say to those who are familiar with his lectures or writings. To those who are not one may say that these lectures belong to the highest class of medical literature and they will find them interesting and instructive.

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Animal Parasites and Human Disease by Asa C. Chandler, M. S. Ph. D., Instructor in Biology, Rice Institute, Houston, Texas. Second edition revised. Published by John Wiley and Sons, Inc., New York. Price \$4.50.

The subject of parasitology has been most thoroughly covered by the author. Each parasite is described and illustrated. Its process of development is shown. Its method of attack, the symptoms produced and the means of prevention are carefully described. This is one of the very essential volumes for a serviceable medical library.

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The Elements of Scientific Psychology by Knight Dunlap, Professor of Experimental Psychology in

the Johns Hopkins University. Illustrated. Published by C. V. Mosby Co., St. Louis. Price \$3.50.

The author attempts to present the fundamental principles of the psychology of the present time and particularly the psychology which may be applicable to education, industry and the arts. It is prepared more especially for the college student. The student who gives this book the very careful study it deserves will find his vocabulary quite considerably increased. Psychology appears to be a sort of culture field for the development of new words.

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Physiology and Biochemistry in Modern Medicine by J. J. R. Macleod, M. B., Professor of Physiology in the University of Toronto, formerly Professor of Physiology in the Western Reserve University. Fourth edition with Illustrations. Published by C. V. Mosby Co., St. Louis. Price \$11.00

This edition has been revised and sufficiently rewritten to include all of the newer facts that have been added to our knowledge of this most important subject. Biochemistry has assumed considerable importance in medicine and promises to solve some of the very difficult problem that now confront us. This work by Macleod is one of the most complete and exhaustive ever published on the subject.

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Physical Diagnosis by M. D. Rose, M.D., Lecturer on Physical Diagnosis and Associate Professor of Medicine in the University of Arkansas. Third edition. Three hundred nineteen illustrations. Published by C. V. Mosby Co., St. Louis. Price \$8.50.

In this edition the author has rewritten the chapter on examination of the circulatory system and on blood pressure. Many changes have also been made in the text of other sections of the work. The subject is carefully and thoroughly covered and the illustrations are carefully prepared.

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Ophthalmoscopy, Retinoscopy and Refraction by W. A. Fisher, M. D., Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat, College, Chicago. Published by W. A. Fisher, M. D., Chicago. Price \$4.00.

This is a very practical book giving in sufficient detail the examination of eyes and the indications of the various retinal and other findings. About half the book is devoted to



refraction and this subject is very thoroughly expounded.

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Diseases of Women by Henry Sturgeon Crossen, M. D., Clinical Professor of Gynecology, Washington University. Fifth edition revised and enlarged with illustrations. Published by C. V. Mosby Co., St. Louis. Price \$10.00.

This is a complete work on Gynecology and has been brought up to date in its revision. The subject is greatly elucidated by the very excellent illustrations. It seems hardly possible that anything could be added that would increase the value of the work to the gynecologist or the general practitioner.

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Endocrine Glands and the Sympathetic System by P. Lereboullet, P. Harvier, H. Carrion, A. G. Guillaume, translated by F. Raoul Mason, M. D., Instructor in Pediatrics, New York Post Graduate Medical School and Hospital, with the collaboration of Daniel R. Ayers, M. D., Assistant Professor of Gynecology, New York Post Graduate School and Hospital. Published by J. B. Lippincott Co., Philadelphia.

The growing importance of Endocrinology constantly increases the demand for more light on the subject. In addition to the few real facts known a great deal of accumulated clinical experience lends interest to the subject. In this text the subject has been as well covered as the facts known and the results of experiments justify.

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General Medicine, being volume 1 of the Practical Medicine Series under the general editorial charge of Charles L. Mix, M. D. Published by The Year Book Publishers, Chicago. Price of this volume, \$3.

This volume covers four departments: infectious Diseases and Endocrinology by Geo. H. Weaver, M. D.; Diseases of the Chest by Lawrason Brown, M. D.; Diseases of the Blood and Blood-Making Organs and Diseases of the Blood-Vessels, Heart and Kidney by Robert Preble, M.D.; Diseases of the Digestive System and Metabolism by Bertram W. Sippey, M. D.

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### Too Many Diphtheria Patients Die

Why should there be any diphtheria mortality at all? Antitoxin is to this disease what water is to fire. The answer to the question is, therefore, that the antioxin is not given soon enough or in sufficient quantity. Fire

does not spread more surely or more rapidly among combustible materials than diphtheria in the tissues of the child attacked. The one supreme necessity is to head it off—put it out. A dose of 5,000 units of antitoxin may not suffice. This dose should be the minimum; and it is far better to give 10,000 or 20,000 units in one dose than in two.

Nature is helpless in many of these cases; her defensive forces are simply overwhelmed by the poison of the disease. Give the patient a full dose, a liberal dose, of antitoxin, and as many as may be required; arrest the poisoning process; and then nature, relieved, rallies her phagocytic forces and destroys the invading bacilli.

The mortality of diphtheria in this country, according to the Parke, Davis & Co. advertisement elsewhere in this issue, is 10 per cent. One patient out of ten dies. Save the tenth child!

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### Broncholithiasis

Arthur R. Elliott, Chicago (*Jour. A. M. A.*, Oct. 14, 1922), reports a case of multiple glandular ulcerative broncholithiasis. The man, aged 38, had had influenza in 1918, and bronchopneumonia in February, 1920. In August, 1920, increasing weakness compelled him to stop work. His digestion became much upset, and for a period of eleven weeks he was confined indoors. About midway of this period of confinement he developed a cough. This developed without fever and was productive from the start. After it had lasted with increasing severity for one month, he coughed up a small concretion about the size of a grain of wheat, the sputum being purulent and tinged with blood. Following this he coughed up similar concretions almost daily for several days, and thereafter every three to seven days until they numbered in all fifteen, of about uniform size. Gradually the cough became less persistent and stone expulsion less frequent, although they were of larger size. The cough had continued with abundant mucopurulent expectoration, and until the present date stone expulsion has occurred about once from every two to four

weeks until they now number sixty in all. Their combined weight is 2.4 grams. The largest concretion is irregular, somewhat porous, ragged and branched, measures 1.3 by 1.1 by 0.7 cm., and weighs 0.52 gm. There is distinct clubbing of the finger tips. Elliott believes that this case appears to constitute an instance of multiple calculi of glandular origin which penetrate the bronchi by ulceration and are expelled singly with characteristic phenomena of stone asthma or bronchial colic. Chills, fever, hemoptysis and chest pain accompany each expulsion. There appears to be no bone disease present; tuberculosis is excluded, and blood calcium concentration does not persist. The primary etiologic factor remains a matter of doubt. Pneumonia at the age of 8 and "influenza bronchopneumonia" seven months before the first stone expulsion may be concerned in the pathogenesis. There appears to be in this case, as in other chronic forms of pathologic calcification reported, a morbid constitutional tendency to the laying down of calcium salts at a point least capable of holding them in solution.

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### **Congenital Hypertrophic Pyloric Stenosis and Its Treatment by Atrophy**

Sidney V. Haas, New York (*Journal A. M. A.*, Oct. 14, 1922), asserts that the problem in this condition is a medical one, and that atropin is practically a specific. Pyloric stenosis is only an advanced degree of pylorospasm. It is only a single manifestation of a general hypertonic state whose etiologic factor is an overaction of the vagus portion of the autonomic nervous system. There is usually a hyper-excitability of all motor functions. In the treatment, certain points should be observed: Errors in diet or hygiene must be corrected. In every advanced case, saline solution should be given subcutaneously at frequent intervals until enough fluid can be taken by mouth to supply body needs. Atropin, like digitalis, must be active, i. e., freshly prepared from the crystals. Once in solution, deterioration is rapid. In the milder cases, the drug may be given by mouth, in

the bottle, or, if the patient is breast fed, in a teaspoonful of water before feeding. In the severe cases, the drug may be administered hypodermically until vomiting is controlled. The dose is variable, 1-1,000 grain (or even 1-2,000 grain, in rare instances) at each feeding to a maximum which either controls symptoms or produces the physiologic effect, i. e., flushing, etc. Beginning with 1-1,000 grain, the amount is increased at each feeding until the result is obtained, when the dose becomes fixed. Treatment may need to be given only a few weeks, or may be required most of the first year. There are rare cases in which much smaller doses are required to begin with. Occasionally, constipation with severe rectal tenesmus results. The omission of a few doses of atropin relieves this.

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### **A Simple Non-operative Method of Treating Gastric Ulcer**

Besides the withholding of food and rectal alimentation, Albert A. Epstein, New York (*Journal A. M. A.*, Oct. 14, 1922), resorts to continuous irrigation with distilled water warmed to body temperature or even a little higher, then colored with a saturated solution of Congo-red (1 c. c. to the gallon). The Congo-red serves as an indicator of the presence of hydrochloric acid in the stomach, which manifests itself by the blue coloration of the return fluid. The irrigation should be continued until the return fluid is of the same color as the irrigating fluid. If solid particles are present in the return fluid after all the acid has been removed, the irrigation should be continued until they are no longer present. The inflow is then stopped; but the suction is continued until all the irrigating fluid has been removed from the stomach. Fifty cubic centimeters of a 0.5 per cent colloidal iron solution is then allowed to flow into the stomach, and permitted to remain there. The tubes are then withdrawn and the treatment is complete. The patient is permitted to rest for two hours. The colloidal iron is given for the first three days only, or longer in cases when no food is given by mouth. In the two hour interval between



treatments, a 5 per cent glucose solution is administered by the rectal drip method. Each period of irrigation, followed by the instillation of colloidal iron, constitutes a treatment. The number of treatments which it is possible to carry out in the course of a day is somewhat variable, and depends on a number of circumstances. From the experience thus far gained by Epstein the number of treatments need not exceed four, but, for proper efficacy, no less than two should be given daily. The total duration of the treatment is from two to three weeks. In the first week, the maximum number of irrigations are given. Subsequently, the number is gradually reduced, and so timed as to fit in with the feeding of the patient. The relief which the patients have obtained by this method of treatment is said to have been very striking. Whether the results thus obtained will prove to be permanent requires further observation.

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### New Methods of Studying Gastric Paristalsis

Walter C. Alvarez, San Francisco, (*Journal A. M. A.*, Oct. 14, 1922,) discusses briefly the progress that has been made in the study of the physiology of the stomach, especially by means of an apparatus which he devised. While our knowledge of gastric physiology is still largely in the crude stage of visual observation, something has been learned about the gastric pace-maker; about different types of rhythmic activities; about gastric "systoles"; about "blocks" and dissociations of activity between the body of the stomach and the pyloric antrum. Stimulation of the vagus produces quite different effects in the fundus and in the antrum. It is surprising to find areas on the stomach in which the muscle is responding at one time to two or more sets of rhythmic impulses. Some observations have been made on the influence of the stomach on the duodenum. The records generally show little sign of the "law of the intestine." The fundus sometimes appears to relax while the rest of the stomach is contracting.

### Milk-Borne Diphtheria

An epidemic of diphtheria in Austin, Tex., was investigated by Malcolm Graham and E. H. Golaz, Austin, Tex. (*Journal A. M. A.*, Oct. 14, 1922). Fifty-two cases of a total of seventy-one were traced to infected milk. More than 80 per cent of the cases were in adults. The membrane was atypical, and the infection was unusually virulent. The source of the infection was traced to a milker who had a perforating ulcer of the septum, which was covered with a white, membranous deposit. Cultures gave a luxuriant growth of typical diphtheria bacilli, and the organism was powerful enough to kill a 350 gm. guinea-pig in thirty-six hours. Another pig, injected but protected by antitoxin, had no ill-effects. The perforation existed four years; it had been diagnosed syphilitic, and several treatments had been administered. The man had had difficulty at times for a year breathing through his nose, and would relieve himself by blowing violently to force from the nostrils a mass of whitish material. The authors urge that nose cultures should always be taken as well as throat cultures.

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### Intra-Abdominal Hemorrhage from Stomach Due to Osteopathic Treatment: Report of Case

One of the possible dangers of indiscriminate mechanotherapy is illustrated by the case reported by B. J. O'Neill and W. W. Crawford, San Diego, Calif. (*Journal A. M. A.*, Nov. 4, 1922). A woman, aged 22, eleven hours before admission to the hospital had been seized with severe abdominal pain and slight vomiting shortly after eating radishes, which had always disagreed with her. A person calling himself an osteologist, and claiming to be an improvement over the osteopath, was called in, and subjected her to vigorous abdominal massage, followed by manipulation of the neck. To accomplish this, he threw her face downward over his knee, striking her abdomen against his knee. This caused an immediate increase in the abdominal pain. This continued, became colicky in character, and vomiting increased. The pa-

tient was taken to the hospital for treatment. A diagnosis of probable ruptured appendix was made and immediate laparotomy undertaken. When the abdomen was opened, slightly to the right of the median line, there was a gush of bright red blood and about 3 pints (1.5 liters) of fluid and clotted blood was removed with the fingers, swabs and pump, the clots being of varying consistency, none more than a few hours old. Careful exploration of the abdomen and pelvis revealed no abnormalities except a bleeding point on the greater curvature of the stomach, from a ruptured branch of the gastro-epiploic vein about half an inch from the border of the stomach, at the point at which the stomach crossed the spinal column. This was tied with fine catgut. Recovery was uneventful.

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#### Note on the Use of Epinephrin in Heart Block

The report of a case by H. M. Korn and C. D. Christie, Cleveland (*Journal A. M. A.*, Nov. 4, 1922), illustrates the fact that epinephrin may increase a preexisting partial auriculoventricular block. The increase is probably a central vagus effect. The cause of the preexisting partial auriculoventricular block is not clear. Increase in auricular and ventricular rates, excitation of premature ventricular beats and production of extreme auricular arrhythmia may be brought about by the action of epinephrin on a heart which is the seat of auriculoventricular block.

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#### Toxin-Antitoxin Immunization Against Diphtheria

The results of twenty-five years of experimental and practical investigation of the immunizing effect of toxin-antitoxin injections and the value of the Schick test as presented by William H. Park, New York (*Journal A. M. A.*, Nov. 4, 1922), are: Three injections 1 c. c. each, of a suitable toxin-antitoxin mixture spaced one or two weeks apart, will cause about 85 per cent of susceptible children or older persons to develop sufficient antitoxin to give the negative Schick reaction and produce marked, if not absolute protec-

tion against diphtheria. The duration of the immunity in at least 90 per cent of the children is for more than six years and probably for the remainder of life. There seems to be no difference in this respect between these, and those who develop antitoxin naturally. Toxin-antitoxin injections should not be given within two weeks after an injection of antitoxin; otherwise the toxin is slightly overneutralized and the resulting development of antitoxin is lessened. Mixtures made from old toxin and antitoxin are fairly stable and may be used for a period of one year. A toxin-antitoxin mixture of stabilized materials which is safe when it leaves the laboratory cannot become more toxic on being kept. The Schick test is an extremely reliable means of separating those individuals who have antitoxic immunity from those that have none. No child should be pronounced immune from diphtheria because of having received three immunizing injections of toxin-antitoxin. A negative Schick test is absolutely necessary before one can properly make such a statement or issue a certificate. The toxin-antitoxin injections are inadvisable before the age of 6 months. It is probably safe to wait until the infant is 9 months old and then to give the injections at the first suitable occasion. During the first three years, there is almost no annoyance from the injections. As the child grows older, the danger from diphtheria gradually lessens, and the percentage of those developing annoying local and constitutional reactions slowly increases. There appears to be no difference in the degree of immunity between those individuals who have developed antitoxin from natural causes and those who did so because of the stimulus of the toxin-antitoxin injection. Institutions in which the children have been given the immunizing injections there have been less than one fourth as many cases as among the untreated children, and these cases have been of less severity.

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#### The Normal Hemoglobin Standard

Russell L. Haden, Kansas City, Mo. (*Journal A. M. A.*, Oct. 28, 1922), urges that all



hemoglobinometers should be calibrated in terms of a uniform standard. The ferricyanid method as adapted by Van Slyke, in his opinion, affords the most desirable means of standardization. The ideal standard takes as 100 per cent the average normal number of grams of hemoglobin per hundred cubic centimeters for each 5 million red cells. The average hemoglobin content of the blood of fifty-two normal persons has been determined with the Van Slyke apparatus to be 15.6 gm. per hundred cubic centimeters for each 5 million cells. All hemoglobinometers should be calibrated with the Van Slyke apparatus on this basis, so that 100 per cent equals 15.6 gm. per hundred cubic centimeters. It is suggested that readings with this standard be called the normal scale.

#### **The Etiology of Eosinophilic Pleural Effusion**

It is pointed out by N. E. Clarke, Ann Arbor, Mich. (*Journal A. M. A.*, Nov. 4, 1922), that the reported cases of eosinophilic pleural effusion have been associated with a great variety of conditions, such as trauma, infection and neoplasm. The presence of the tubercle bacillus has been demonstrated but once in seventy-nine or more cases. Not only did Clarke's patient with eosinophilic pleural effusion present the usual clinical signs and symptoms of pulmonary tuberculosis, but, in addition to this, the tubercle bacillus was demonstrated in the fluid obtained from the chest, by means of animal inoculation. Even though most cases in which this type of pleural effusion is present have not been proved to be tuberculosis, nevertheless, it does not seem necessary to accept this condition as a distinct etiologic type of pleural exudate, for it is well known that the etiologic factor of most primary pleural effusions is the tubercle bacillus. Latent tuberculous lesions are present in most adults, even the apparently healthy, and the tendency of such lesions to flare up under conditions which lower the resistance has been repeatedly emphasized.

#### **The Pathogenesis of Parathyroid Tetany**

Parathyroid tetany or depression. Lester

R. Dragstedt, Chicago (*Journal A. M. A.*, Nov. 4, 1922), asserts is due to an intoxication. The responsible toxic substances come chiefly from the gastro-intestinal tract. They arise through the activity of the proteolytic group of intestinal bacteria, and are probably for the most part protein split products of the nature of amines. The function of the parathyroid glands is to prevent intoxication by these poisons. The parathyroid glands do not furnish a hormone necessary for life, and dogs may be kept alive indefinitely after their removal, if treatment directed to the prevention of this toxemia of intestinal origin is carried out. H

#### **The Effect of Magnesium Sulphate on the Secretion of Bile**

Experiments were undertaken by Emmett B. Frazer, Rochester, Minn. (*Journal A. M. A.*, Nov. 4, 1922), in order to determine whether magnesium sulphate introduced directly into the duodenum or into the circulation would cause any change in the volume or in the character of the bile. The technic employed was simple and easily executed. When the common duct was cut at its entrance into the duodenum, any nerve path which might have passed by this route was also severed. If a nerve reflex was dependent on such a route it would have been abolished. It was found that the rate of flow of bile in the control experiments was more uniform when the animals were fasting; therefore, any fluctuation in the rate of flow after the injection of magnesium sulphate could best be determined in the fasting state. After intraduodenal injection of magnesium sulphate, the duodenum, which was clearly visible through the skin, at first contracted and then remained markedly relaxed for from thirty minutes to one hour. This initial contraction was probably due to mechanical stimulation by introduction of the needle and the solution. The results of these experiments were entirely negative. When magnesium sulphate solution was injected directly into the duodenum of dogs or injected into the circulation, there was neither acceleration of the rate of flow of bile,

nor change in the color. In many instances the rate was even somewhat retarded. When bile was injected into the duodenum, there was a definite, prompt increase in the flow of bile. —R—

#### Clinical Studies of Quinidin

A summary of the untoward effects of quinidin administration is made by Robert L. Levy, New York (*Journal A. M. A.*, Sept. 30, 1922). It is clear that not every patient suffering from fibrillation of the auricles should receive the drug. Persons with conspicuous cardiac enlargement, that is, with apex impulse outside the nipple line, and particularly if there are multiple valve lesions, are least likely to respond with normal rhythm. Such enlargement may be taken to indicate serious derangement of cardiac mechanics by valvular disease or of extensive myocardial involvement, or both. It is in these cases also that ventricular tachycardia occasionally occurs. Patients with but little cardiac enlargement and without signs of valvular defect have, in Levy's experience, done well. A careful study of the patient's symptoms while the drug is being given may also be of value. When unpleasant sensations are complained of early in the course of treatment, and persist or recur with further administration, it is probable that normal rhythm will not be restored, or, if established, will be present for only a short time. The occurrence of unpleasant symptoms may likewise serve as a guide by means of which cases of sudden collapse, as described by Frey, may be avoided. At all events, little is to be gained and possibly harm may be done, by persisting with therapy in the face of complaint of serious discomfort by the patient. Careful clinical study of patients with auricular fibrillation will serve to set apart a certain number unsuitable for quinidin treatment. The carrying out of therapy in bed, in a hospital, preferably under graphic control, will further safeguard against accident. Levy emphasizes again that, "carefully administered, this drug is a therapeutic agent of great value; indiscriminately given, it may, on occasion, be expected to cause disastrous results."

#### Extraordinary Development of the Tactile and Olfactory Senses

Thomas J. Williams, Chicago (*Journal A. M. A.*, Oct. 14, 1922), discusses the case of Willetta Huggins, aged 17, who "smells" colors and "hears" with her finger tips. She has been wholly deaf seven years and completely blind for about two years. —R—

#### Specific Precipitin Reaction of Leukocytes

Ludvig Hektoen and F. R. Menne, Chicago (*Journal A. M. A.*, Oct. 14, 1922), report the results of some experiments on the specific precipitinogenic action of leukocytes. They found that extracts of dog, guinea-pig and human leukocytes contain specific precipitinogenic substances. Whole human leukocytes and the serum of pleural exudate in empyema also induce the formation of specific precipitins for extracts of human leukocytes. Leukocytes appear to contain specific elements not found in red corpuscles, platelets or blood serum, and these elements may be present in the serum of inflammatory exudates. —R—

#### Carcinoma of the Esophagus, with Perforation of the Aorta

Necropsy in the case cited by Joseph J. Meyer, Johnstown, Pa. (*Journal A. M. A.*, Oct. 14, 1922), revealed a fibrous, malignant growth involving the esophagus, on a level with the bifurcation of the trachea, about 3 inches in length. There was an ulcerating area in the center of this growth which invaded the aorta, and here the perforation occurred. The opening into the aorta admitted an ordinary sized lead pencil. The stomach was filled with blood. No metastasis and no other abnormalities were found. —R—

#### Treatment of Abdominal Pain Due to Ureteral Obstruction

When the pain is caused by ureteral stone, A. J. Crowell, Charlotte, N. C. (*Journal A. M. A.*, Sept. 30, 1922), states, it is relieved by removal of the stone. Pelvic lavage, in cases of pyogenic infections, will prevent kink in the early stages of infection and, when kink occurs, lavage will be very beneficial in many



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EDITH GLASSCOCK, B.S.

Business Manager

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cases. Kidney fixation, in cases of nephrop-  
tosis, is about the only procedure from which  
may be expected beneficial results. When the  
kink is due to aberrant blood vessels, they  
should be ligated and severed. Beneficial re-  
sults may be obtained, when the symptoms  
are produced by adhesions, by breaking up  
the aberrant blood vessels and freeing the  
ureter. In a case of two right-angle kinks  
in one ureter, excellent results followed the  
use of the retention catheter for three days.  
Best results may be expected from this plan  
of treatment when the infection has not been  
of long standing, and when the ureters are  
not greatly dilated.

R

## The Congenital Factor in Chronic Renal Disease

Edward Weiss, Philadelphia (*Journal A. M. A.*, Sept. 30, 1922), records the clinical notes and pathologic findings in three uncommon cases of chronic renal disease occurring in comparatively young persons, associated with a marked degree of nitrogen retention and running a rapidly fatal course. In addition, because of the absence of a definite etiologic factor, together with an unusual appearance of the kidneys at necropsy, the importance of a congenital basis is emphasized, as an etiologic factor in these and similar cases.

R.

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for October 1, 1922.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who, having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post Office Address
Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society .....	Topeka, Kansas

Editor—W. E. McVey .....Topeka, Kansas  
Managing Editor—None.  
Business Manager—None.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, M. L. Perry, Topeka, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. Geo. M. Gray, Kansas City, Kansas, Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVEY, Editor.

Sworn to and subscribed before me this 26th day of Sept., 1922.

W. F. WEBBER,

Notary Public.

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# THE JOURNAL

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### Bronchoscopy

E. M. SEYDELL, M.D., Wichita

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

My paper on Direct Laryngoscopy and Bronchoscopy will deal with some of the phases of this subject that should be of interest to the general practitioner.

Bronchoscopy must always be looked upon as a side line for the average Laryngologist.

First—Because of the poor financial returns in connection with the expensive equipment one must possess, even to attempt the most simple extraction. In Jackson's report on 612 cases of foreign body extraction, 91.9 per cent were charity or part charity patients.

Second—Because of the scarcity of the available material to keep one's hand and eye in practice. On the other hand, it is absolutely essential that some man in each city or district become an expert in this work, as many lives will be saved by the prompt removal of foreign bodies, secretions, and obstructions from the respiratory passages. To become a successful bronchoscopist one must master many details, and also possess a natural aptitude for the work.

#### INDICATIONS

First—Direct laryngoscopy is of great value as a method of examination, where, for any reason, it is impossible to view the larynx with the indirect method. This applies in children or adults where it is impossible to obtain their co-operation in using a laryngeal mirror.

Second—For the removal of foreign bodies lodged in the larynx.

Third—It or suspension laryngoscopy are the methods of choice in any operative procedure on the larynx. I wish to state that the more adept one becomes with direct laryngoscopy the less often will he find it necessary to employ suspension. The former

method has so many advantages over the latter that such men as Jackson never used the suspension apparatus.

Fourth—Direct laryngoscopy is indicated in cases of edema of the lung which follow chemical irritations: e. g. The edema which follows the inhalation of smoke, also in a drowned lung caused by a foreign body, even after its removal, also in cases of bronchial pneumonia, where the same pathology may be found; using the suction apparatus to withdraw the fluids from the trachea and bronchi. It might be of value to bring out that Chevalier Jackson states that he is of the opinion that a large number of the broncho pneumonias in the last flu epidemic, who were literally drowned in their own secretions, could have been saved by this method or by a tracheotomy plus the removal of the secretions by suction. Finally direct laryngoscopy or bronchoscopy is of immense value in laryngeal diphtheria. The intubation tube may be inserted directly into the larynx in these cases, or where the distal end of the tube becomes occluded with membrane the same may be removed with a forceps, thus making it possible to re-insert the tube.

#### BRONCOSCOPY IS INDICATED

First—In all foreign bodies in the trachea and bronchi. It is very important that any patient who has inhaled a foreign body should be kept in a horizontal position as much as possible until the object has been located and removed.

I find it impossible to refrain from reading a few of Jackson's don'ts:

1. Do not reach for the foreign body with the finger, lest the foreign body be thereby pushed into the larynx, or the larynx be thus traumatized.

2. Do not make any attempt at removal with the patient in any position other than

the recumbent, with the head and shoulders lower than the body.

3. Do not hold the patient up by the heels, lest the foreign body be dislodged and asphyxiate the patient by becoming jammed in the glottis.

4. Do not fail to have a radiograph made, whether the foreign body in question is of a kind dense to the ray or not.

5. Do not fail to search endoscopically for a foreign body in all cases of reasonable doubt.

6. Do not pass an esophageal bougie, probang, or other instrument blindly.

7. Do not tell the patient he has no foreign body until after radiography, physical examination, indirect examination, and endoscopy all have proven negative.

8. Do not fail to make a thorough physical examination of the lung as this method is of the greatest importance in locating non-opaque bodies.

Bronchoscopy is also of immense importance in diseases of the trachea and bronchi.

1. In bronchiectasis if the radiogram is negative yet there is a suspicion that we might be dealing with a foreign body, search should be made to exclude the same. The treatment of this disease has of late been undertaken by suction and washing out the cavities with some measure of success.

2. Every case of dyspnea should be bronchoscoped except, of course, pneumonia, and similar well understood conditions.

3. Every case in which tracheotomy does not relieve the dyspnea should be thus examined to determine why the tracheal cannula does not give relief.

4. Endobronchial treatment has been used with good results in bronchial asthma, lung abscess, and many other conditions which I will not enter into at this time.

#### FOREIGN BODIES ETIOLOGICALLY CONSIDERED

Under this heading I can again do no better than quote Jackson's conclusions in his analysis of 612 cases of foreign bodies in larynx, trachea, bronchi, and esophagus.

1. The most frequent of all causes of for-

eign bodies in the air and food passages is carelessness—87.2 per cent.

2. The most frequent forms of carelessness in their order of frequency are:

(a) Carelessness in putting inedible substances in the mouth.

(b) Carelessness in the preparation of food.

(c) Carelessness in eating and drinking.

(d) Carelessness in permitting children to play while eating.

(e) In permitting toothless infants to eat peanuts, peanut candy, or other things requiring mastication.

3. Age. 81.6 per cent occurred in patients under 15 years of age.

4. Failure either temporary or permanent of the patient's normal protective mechanism was probably a factor of contributory importance in a large number of cases.

5. Physical activities are important etiological factors, especially those associated with deep inspiration, such as crying, coughing, laughing, sobbing and running.

#### SYMPTOMATOLOGY AND DIAGNOSIS

The most frequent cause of the failure to diagnose foreign bodies in the lung is that the physician is misled by the almost total absence of symptoms following their inhalation. In my own experience a patient's parents had been told that a child of two years of age could not possibly have inhaled a six penny nail.

First—because of the almost total lack of symptoms at the time of the accident.

Second—Because the child manifested no severe symptoms subsequently.

In the majority of cases one may obtain a history of irritation, spasm or obstruction of the larynx, varying in intensity, at the time of aspiration. In others the foreign body passes thru the larynx so quickly as to cause no irritation. The object may lodge in the larynx and cause almost immediate death. Again a large sized body may be found lodged in the larynx with but little reaction. If the object lodges in the larynx, it usually produces coughing, hoarseness, and stridor. The cough is usually croupy. Later dyspnea and



cyanosis may develop. Recurrence of these paroxysms may mean a moving object in the trachea which may from time to time be coughed upward into the larynx.

Subjective sensations such as pain in ears or larynx or foreign body sensation may be present. This pain may be increased when the patient swallows. Fever is unusual.

The diagnosis is usually based on the history, sudden onset during perfect health, but the history may be misleading as I will illustrate later in a case report. Where the parent is certain that the child had a foreign body in its mouth previous to the onset of the paroxysm the diagnosis is quite certain.

Diphtheria, angeoneurotic edema, and edema of the larynx from systemic causes must be excluded.

Tracheal foreign bodies are usually movable. The history of laryngeal spasm with a wheezing respiration and cough coupled with the flapping sound produced by the foreign body being coughed upward against the larynx, which at the same time prevents phonation, is characteristic. Later dyspnea and cyanosis may be present. Sudden asphyxia may come on at any moment.

In foreign bodies in the bronchi we may also have a laryngeal history, but on the other hand, its absence should not exclude their presence. The literature is crowded with case histories where no such symptoms were remembered by patient or parent.

In addition to the laryngeal history, we usually obtain the information that following the paroxysm there developed wheezing respiration, paroxysmal coughing, dyspnea, cyanosis, and fever. The severity of the symptoms depend on the nature of the foreign body and the amount of lung tissue cut off. A severe form of toxemia may develop very rapidly, especially in young children. Pain is only occasionally present. There may be hemoptysis.

In other cases the foreign body may produce no symptoms for months, which may cause those in charge of the case to exclude the same. Later these cases usually develop a cough, fever, night sweats, hemorrhages

from the lung, become emaciated and, at this stage may be easily mistaken for tuberculosis of the lung.

#### DIAGNOSIS

It will be impossible for me to go into the question of diagnosis in this paper as it would require my entire time to do justice to this subject.

A careful history, physical and roentgenographic examination will, in most cases, lead one to a correct diagnosis.

The most important factor in the diagnosis of a foreign body in the air passages is to keep the subject in mind and exclude the possibility of this condition as one would syphilis, tuberculosis and other common every day conditions.

I will now report several cases that will show the value of some of the above points:

The first case is that of a child of six years of age that was rescued from a burning building. At the time of her rescue she was quite dyspneic and cyanotic. About one hour after her removal from the building it became necessary to institute artificial respiration, and give the child oxygen for respiratory arrest. She improved after this for a short time, but later it became more difficult for her to breathe. There was some laryngeal stridor, and moist rales could be heard over both lungs. I was called to the hospital to see the case about fourteen hours after her exposure to the smoke and fire. She was taken to the operating room at once where she became unconscious even before the instruments could be sterilized. A child sized Jackson laryngeal speculum was inserted. The larynx showed carbon deposits, some edema, and considerable mucus in the larynx and trachea. A suction tube was inserted into the trachea and a large quantity of dark colored fluid was removed from the same. This re-established respiration and she became conscious at once. The operation was repeated twice more at short intervals, after which she was put back to bed, her condition greatly improved. Her recovery followed without the necessity of repeating the suction treatment. As men-

tioned before, this treatment is of great value in cases of drowned lung of whatever cause.

My second case was in a child of twelve years of age, who had been very ill with diphtheria, both pharyngeal and laryngeal. She had received a very large dose of antitoxin intravenously but notwithstanding this developed a high grade dyspnea and was intubated. This relieved the patient for a short time, only. The attending physician soon became aware that his tube was being obstructed by a piece of membrane below its distal end, and I was asked to come to his aid. The bronchoscope was inserted without the use of any anesthesia and a piece of membrane sufficient in size to cover the palm of one's hand removed from the trachea. The intubation tube was reinserted as there was considerable subglottic swelling and the patient made an uneventful recovery.

My third case. This was a man of fifty-two years of age. He had been suffering with a severe sore throat for about one week, and had been quite hoarse. His physician was called to his residence during the night; the patient having had a severe choking spell in his sleep. He was unable to speak above a whisper. Thinking the patient had developed a laryngeal diphtheria, antitoxin was administered. The patient's dyspnea increased until his physician was compelled to insert a tracheal trochar to prevent asphyxiation. I was called up over a long distance phone for advice two days later, and at once asked if he had not inhaled some foreign body. His physician's reply was that he had made this inquiry, but the patient had denied doing so. He informed me, however, that the patient was subject to attacks of epilepsy. I advised bringing him to the city, which was carried out. The patient was in very poor condition. His color was ashy grey—pulse slow—face bathed in cold sweat. The tracheal cannula was a No. 1 tube without an inner cannula, and at this time caked with dried secretion. The trochar had entered through the first interspace. We succeeded in inserting a No. 3 Jackson cannula and the patient was put to bed. The following morning an indirect ex-

amination was made. The findings were those of an edema of the larynx. Again the question was asked, "Could you have swallowed anything?" and again he denied the possibility. A physical examination by an internist failed to reveal anything abnormal in his general condition. An x-ray examination was made which clearly showed the cause of our patient's difficulty. Not until he was shown the x-ray plate did he discover the loss of his teeth. The plate was removed through a laryngeal speculum. This case teaches us how important it is to have an x-ray picture.

My fourth and last case was in a boy of fourteen years of age, who gave a history of having inhaled a home made whistle, thirty-six hours previous to his arrival in Wichita. He was unable to sit up, being compelled to remain in a prone position because of a severe cough and dyspnea. He also suffered considerable pain in his chest. There was limitation of pulmonary excursion of the left side of the chest. Percussion, palpation and auscultation gave evidence of alveolar collapse of the left lower lobe. The left upper lobe was not so affected. X-ray examination clearly demonstrated that the chest findings were correct, and also the reason for these changes. The whistle was removed under local anesthesia in four minutes. After 12 hours the patient's respiratory symptoms were relieved and in 24 hours all physical findings had returned to normal. His temperature which was 101 before the removal of the whistle returned to normal in 24 hours.

This case teaches us the importance of making a thorough physical examination, especially in cases in which we are dealing with non-opaque bodies. The x-ray would not have been necessary in localizing the foreign body.

In closing, I would advise that those that are doing or intending to do bronchoscopy supply themselves with an ample variety of bronchoscopic instruments and that they make a thorough study of each case before attempting any bronchoscopic manipulation.



## Anxiety and Fear, Normal and Abnormal

L. C. BISHOP, M.D., Wichita

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

Anxiety, as one of the emotions, is of particular interest because of its omnipresence—it is perhaps more commonly with us in health and disease than any one other feeling. Dr. White defines fear as "The emotion which corresponds to a danger threatening the organism from the outside: Anxiety corresponds to a danger which threatens the organism from within."

From the time of early childhood until the end of life is reached we find various protective mechanisms at work which have their origin in the emotion of fear. The wink of an eyelid, the jump on being startled are examples of involuntary reflex acts for physical protection. Be it remembered that even the building of our home is a voluntary act of physical protection based in the first instance upon fear; our forefathers did not have four walls and a roof for show purpose and comfort half so much as for protection, and with us home means safety as strongly and surely as it means contentment and happiness.

There is no one among us who will admit he is timid, for the admission brings with it the sense of cowardice, yet the fact remains we are all victims of certain fears and anxieties pertaining to our physical beings. These concern physical safety, preservation of health, of sex characteristics, etc. Also, do we all experience anxieties referable to our material welfare, protection of our rights and properties and business. Yet it is not anxiety over our physical selves and material things which proves the greater bugbear, rather it is those anxieties connected with our mental adjustment to life's responsibilities which are most besetting and most apt to destroy the balance of our nervous mechanisms. It is of these anxieties and fears which assault our personality and psychic being in every day life I wish particularly to speak.

Numerous of our instincts and promptings are not in harmony with social demand and

custom and we find ourselves struggling to make adjustment. Living and working and having our being is so complex a proposition that man finds himself trying to simplify it—and right here lies the root of much of the anxiety which may be termed normal and experienced by all, as well as of the abnormal anxiety exhibited in the neuroses. The act then, of adjusting ourselves to our environment and to life brings, of necessity, mental conflicts. Dr. Jelliffe says "Conflict is at the very basis, the very root of mental life. The adjustment of the individual to the world of reality is by no means the passive moulding of external forces, but the individual is constantly and actively, in his mind at least, reaching out and trying to mould the world to suit himself." Or as Dr. Frankwood Williams puts it, "We human beings are constantly endeavoring to harmonize ourselves with the world as we find it to be with the world we once thought it to be or as we now wish it to be." So it is that there are formed many defense mechanisms against things which threaten our satisfactory mental poise or peace of mind. When we face disagreeable situations and fail to adjust ourselves we frequently resort to various tactics to escape self-criticism. I shall mention a few of these common defense mental practices. (1) Memories which are unpleasant are forced into our subconscious minds. Forgetfulness then is one of our commonest defenses resorted to to preserve peace of mind. All of you have experienced difficulty in recalling names of certain people. In every such instance thoroughly gone into and worked out by psychoanalytic methods it is shown that the forgetfulness is due to the fact that some unpleasant association is called to mind by that name or the individual. To protect from repetition of this unpleasant association or feeling, an attempt is made to bury the name in the subconscious mind and difficulty in recalling it is experienced. (2) Again, we explain to ourselves our failures by placing blame on environment, external influences and conditions, unfairness of others, etc., it being more agreeable to rationalize falsely than to admit

selfblame, and mark you, this falsifying is not usually well recognized by the individual, so cleverly does he fool himself. (3) Another common defense mechanism is the tendency that is inherent in all of us to adapt himself to an unobtainable desire by denying the existence of the desire or minimizing the value of the thing wished for in common language, sour grapes. (4) A fourth protection frequently observed in day dreaming, spending moments in a world of most delightful sort. In this way striving to escape reality and dissatisfaction with self by substituting a momentary consciousness of extreme well-being and superiority. The delusions of grandeur present in certain mental diseases are only exaggerations of this mind phantasy to which we all give in more or less. The old dementia praecox patient in the State Hospital who scrubs floors but who all the time is to herself the Queen of England is an example of this defense mechanism fully developed. (5) Finally, when conflicts become overpowering adjustment to our environment and work extremely disappointing and dissatisfying the individual may then take refuge in a neurosis and this is purely a defense mechanism which has carried the individual beyond the limits of normal self-control. A neurosis, then is the end result of an unconscious effort to escape a disagreeable situation. It is commonly said that the person who develops a neurosis has an inherited neurotic makeup; at the same time the law of cause and effect holds here as elsewhere and the man with the strongest nerves may break if the conflict is severe and intense. It is to be remembered that a neurosis is usually an hysterical phenomenon and practically always a reaction to fear and anxiety. In civil life we are constantly meeting with this condition but more particularly was there much opportunity given to study and observe this abnormal defense reaction by alienists whose privilege it was to serve in the Great War. I quote the following description written by Salmon of the development of a war neurosis in a soldier as an attempt on the part of the individual to escape from the intolerable situation.

"Faced with almost certain slaughter if he obeys orders, or believing such to be the case, there arises within him a conflict between his instinct of self preservation and sense of duty. His instinct will drive him to flee. His sense of honor, his training as a soldier, his pride, his love of country demand that he obey. Auto-suggestion-memory of a broken leg or some other previous injury—or external suggestion, such as the sight of wounded men being taken to the rear and safety may enter in and there develops an hysterical paralysis, or blindness, a deafness, an aphonia, etc. On arrival at the hospital it is found that there is nothing organically wrong with the patient. Treated as malingerers, as cowards or called yellow, patients of this type are lost; other conflicts are precipitated that further incapacitate them. Treated for what they are, the nature of their difficulties carefully explained to them, showing them that they were not in reality yellow but that they failed through an unconscious response to a normal instinct of self-preservation, a large per cent of these patients recovered and with regained self-respect and confidence born of greater knowledge of themselves, returned to the line and went through, many making the supreme sacrifice."

It is to be kept in mind that thousands upon thousands of persons in civil life who go about their tasks with reasonable outward cheerfulness are nevertheless in the grip of fears and anxieties to a degree frequently approaching mental breakdown. It is definitely concluded that anxiety, worry, fear with associated insomnia, restlessness and unhappiness of spirit result from mental conflicts in the great majority of cases rather than being due to material disappointments, losses, etc. Elbert Hubbard once said "We would all be happy children if our minds would allow us to be." Fear and anxiety are to be regarded only as symptoms and the medical man, whose training forbids the treatment of symptoms alone, must in fairness to his patient determine the cause of the distressing emotion. Only the removal of the cause is curative, and in this connection it must be



emphasized that the real or basic cause of the fear or anxiety is usually unknown to the patient, because it is the result of subconscious conflict. To bring to the conscious mind the painful experience responsible for the development of the conflict and repression is therefore necessary and we may have to go back through many years of life, even to childhood days, to unearth the repression. When this can be successfully done and the patient understands the "why" of the fear, a cure automatically occurs.

You are all familiar with the group of what may be called benign worriers of Neurotics. Not seriously ill and suffering out of all proportion to physical findings, fearful of disease which does not exist, fearful of sudden death which does not threaten. Also you all know another class of patients who have pronounced phobias. Among the commonest of these obsessive fears are agoraphobia, (fear of open places), hypsophobia (fear of high places), nyktophobia (anxiety before and during the night), claustrophobia (fear of small or closed rooms), and misophobia (fear of dirt and contamination), the latter being so common that it has received a lengthy description by Mendel who designates it the *Mania of Doubt With Fear to Touch*.

The general practitioner doesn't realize the general prevalence of phobias, with their associated compulsive acts, by reason of the fact that the sufferers are ashamed of their predicament, they regard it as a weakness of will or mind and even do not consult the alienist until their life is made almost unbearable. I shall speak of only one case treated by me to demonstrate the tragedy of an obsessing fear. A business man from a nearby town had for eight years past been compelled to go, sometimes once a day, sometimes 8 or 10 times, occasionally in the night, to a certain place, (a lumber yard surrounded by a high fence) to turn his back upon it and count to 13. If he fought this act, as he did for many months during the development of the trouble, yielding only occasionally, he was filled with torment of fear as if death was pending and suffered such agony of mind

that persons who happened to observe him would bring water, give him fresh air, etc., so haggard and badly did he look. When he gave in to this compelling fear and did as his subconscious mind directed, great mental comfort and calm immediately resulted. He carefully guarded his secret from everyone. To cover his act he even bought property near the lumber yard which gave him an ostensible excuse for being seen there. Psychoanalysis revealed that as a boy of 18 he had visited a Gipsy or Indian fortune teller who had terrorized him with this statement, "You will come to a bad end before you reach middle age—only repetition of 13, magic 13, to the Great Spirit will save you." Mark you, he was terror-stricken by this old hag who sat in semidarkness in a tent: He was mystified, didn't understand her words of warning and spent a wakeful, restless night. Being naturally buoyant and hopeful like all boys the influence of her words soon ceased to be a strong and unpleasant one, and yet frequently there came a torment and doubt in his mind which he would fight with every effort of his will and finally the whole matter was successfully buried in the subconscious mind: he had entirely forgotten her words, had not even thought of the visit to the fortune teller for 12 years and the experience was only brought out by association tests and psychoanalysis. When finally her words were brought back to conscious recollection and he repeated them to me he became **pale and fearful just** as he had been a thousand times without knowing why. Following this a twenty minute common-sense talk and explanation sufficed to remove absolutely the fear and compulsion and he has since told me he feels like a man out of prison. A total of twelve hours was spent on this case and well spent too. He has gained 24 pounds since being relieved of the curse.

A few moments will now be spent in the attempt to outline the commonest types of neurosis and psychosis in which anxiety, fear and depression are the predominant symptoms. Kraepelin says "Neuroses are commonly designated as a group of diseases character-

ized by changing and transitory nervous disturbances to be distinguished from psychoses by the fact that the symptoms do not involve the mental field—but in practice, psychoses without nervous symptoms or neuroses without mental symptoms are not encountered.”

There is no sharp line of diagnostic distinction between the various types of neuroses. They overlap and merge and present varied and mixed clinical pictures.

Compulsion neurosis is a nervous condition in which the patient is forced against his will and without apparent reason to think certain thoughts or do certain things. It is in this condition that the phobias or obsessive ideas are most strikingly observed, ruling the patient with an iron hand. To illustrate, I have one patient who previous to the time treatment was instituted washed his hands on an average of 60 times a day, who held his breath as much as possible in dusty places, who kept continually spitting on the street to get rid of disease germs in throat and mouth, and who was in countless ways doing peculiar things in response to compelling thoughts based on fears of contamination.

Traumatic neurosis (or traumatic hysteria) is characterized by the gradual appearance following injury, perhaps of a mild sort, of a prolonged period of mental depression accompanied by numerous motor and sensory nervous symptoms. Cases of this sort were first recognized by Erichson in 1886 and Oppenheim in 1889. There are certain opponents to the recognition of such a disease, principally Hoffman and Mendel who maintain that it is either hysteria or neurasthenia of traumatic origin. The symptoms consist mainly of despondency with anxious fears and an incapacity for any earnest employment. The mental effect of pending damage suit frequently serves to promote development and continuance of symptoms and it is only by careful study that these cases can be separated with certainty from malingerers.

Dread neurosis comprises a group of neurotic cases in which the patient suffers a more or less constant feeling of anxious suspense, which dominates the entire life. So

lacking in confidence and so morbid do some of these patients become that drinking, standing, writing and other automatic acts are only carried out with great difficulty and after conscious effort.

In neurasthenia or chronic nervous exhaustion we find that the anxiety concerns the physical self, while in the allied nervous disease, psychasthenia, the fears are referable to the mental being—fear of going insane, etc.

The main psychoses in which anxiety and depression are prominent are manic depressive insanity, melancholia of the involutional type and paresis.

Manic depressive insanity is a recurrent mental disease in which attacks of excitement or depression occur, with healthy intervals and no mental deterioration. The depression is one of selfblame for imagined sinfulness and unworthiness and suicide is more to be guarded against than in any other type of depression. There is a retardation of thought and movement and an abject despair most pitiful to observe, particularly as these patients are as a rule, in health most apt to be unselfish, Christian-like, conscientious, good folks. The anxiety which is present in melancholia of the involutional period more particularly concerns the physical body. These patients have absurd and fantastic hypochondriacal delusions, principally of a nihilistic sort. They have no stomach, no bowels, blood is dried up, etc., and their agitation and mental suffering are distressing and prolonged.

The depressed type of paresis is rarely seen in the male but is much commoner in the female than the expansive type. The anxiety is of a changeable, senseless sort and not constant.

In closing—those of us who have sunshine and contentment in our hearts have much to be thankful for.

—————R—————

Short skirts, babies and old age have steadily lost favor with the really fashionable people; while bloomers, intemperance and Freud have gained a few adherents during the year.



## Practical Mental Hygiene

KARL A. MENNINGER, M. D., Topeka

Report of the First Year's Work of the Nervous and Mental Section of the Topeka Municipal Clinic.\*

Speaking to men and women entrusted with the problems of physical health, a group which has made famous such slogans as "Swat the Fly" and "Use Your Own Drinking Cup." I think I am justified in asking this question: If *physical* health is worth the attention which this very meeting and these organizations prove that it is, how much more attention is deserved by the problems of *mental* health?

Is it possible, you are wondering, that mental health is capable of being objectively sought for and attained? Is there more to "Mental Hygiene" than a mere figure of speech?

My answer is, Yes. Ignorance and negligence alone prevent an extension of the principles of mental hygiene to the lives of every community and every individual. Ignorance is the greater foe. Thus, for example, did you (and you are in a more opportune position than the great mass of people) know that there exists no such disease as insanity.

Do you know that anyone, (even *you*) is capable of developing a mental sickness?

Do you know that there are more mentally sick people outside state hospitals than in?

Do you know that nervousness has nothing to do with nerves?

Do you know the difference between an idiot and an imbecile?

Do you know how many state hospitals there are in Kansas.

Do you know the cause of any form of the idiot and an imbecile?

The chances are very much against your knowing the answer to any of these questions! Yet most people are more amused by this ignorance than ashamed of it!

*From this follows our golden rule for attaining, preserving, and promoting mental health, individual and community. The first step toward mental health is the dissemination of information about mental disease.*

I would remind you that until we learned how typhoid fever was communicated, we could not attain our present conception of water and sewage hygiene. Until the public, and especially the public's leaders like yourselves, know something definite about mental disease, we cannot successfully combat the increasing tide of mental sickness by a constructive program of mental health.

From whom will you learn these facts? Not from teachers, doctors, or lawyers for they do not know. Not from magazines or journals for they will not print them; not from newspapers for they misrepresent them; not from the state's psychiatrists for they are too busy.

There is in Kansas a branch of a national organization known here as the *Kansas Mental Hygiene Society*. This as far as I know is the only organization for several million Kansas people making any effort to consider the problems and dispel the ignorance in this field.

What is the field? Psychiatry is the branch of medicine which concerns itself with abnormal minds. Abnormal minds are minds that perceive wrongly, think wrongly, feel wrongly, and behave wrongly. It is the wrong *behavior* that brings most cases of mental sickness to the psychiatrist. It is likewise wrong behavior that brings truants to the desk, prisoners to the bar, malefactors to the scaffold, and mourners to the bench. Wrong behavior or abnormal conduct is the generic title to which belongs most of the problems of the social worker, the minister, the lawyer, the doctor.

Back of behavior, however, good or bad, there is a certain mental machinery. Only superficial thinkers would pick on the behavior, (the will or volition as it is known technically) without considering the psychological mechanism back of it (perception, ideation, emotion). Yet the curious fact re-

\*Paper read at the U. S. P. H. Institute and Kansas School for Health Officers, at Kansas City, Kansas, April 13, 1922.

mains that these problems are being dealt with in precisely this superficial way. In education, for example, the problem of feeble-mindedness is not really grasped. Although there are probably upwards of 10,000 feeble-minded in this state, most of them in schools, you will see nothing on the programs of the State Teachers' Association dealing with the question of feeble-mindedness. Industrial leaders have no grasp or thought of the mental abnormality back of so many strikes and of the industrial disturbances. From lawyers we ought to be able to expect more, and yet, in only two or three law schools in this entire country is there any such subject as Criminology listed in the curricula. Many lawyers pride themselves on their ignorance of criminal practice.

The medical profession, usually in the van of progressive movements, has in this instance moved very slowly. There are only a handful of Kansas physicians who are members of the Mental Hygiene Society. Nineteen-twentieths of the population of Kansas are removed by a railroad journey of considerable distance from any source of free help in personal problems of mental sickness. There is in this state only one free city clinic for mental diseases!

One year ago, the Topeka Municipal Clinic, under the direction of Health Officer Earle Brown, opened the doors of a weekly neuropsychiatric clinic. One or more nurses are regularly in attendance, and my students from Washburn volunteered aid at various times. Psychological tests were given by them and by the members of the medical staff. In addition to the writer, who was appointed chief-of-staff of this department, Dr. Maude S. DeLand, Dr. A. J. Davidson, and Dr. Harry Lindsay, psychiatrists from the Topeka State Hospital, assisted at various times.

The first year's work may be summarized as follows: A total of over 100 different patients came for treatment making approximately 200 visits. Four states were represented including, in addition to Kansas, Missouri, New Mexico, and Minnesota. In Kan-

sas seven counties were represented and ten cities in addition, of course, to the rural districts without cities surrounding Topeka.

The following diagnostic grouping will prove interesting to the statistically minded:

Neurosyphilis, 37 per cent; Psychoneuroses, 8 per cent; Feeble-mindedness, 16 per cent; Epilepsies, 8 per cent; Neurological, 14 per cent; Endocrinopathies, 4 per cent; Volitional defect, 7 per cent; Medical (e. g., T. B.) 2 per cent.

Nothing will give so good a conception of the type of cases seen and of the work done as representative cases. I propose to abstract eight such.

#### Case 1. Neglected Syphilis of the Nervous System.

As will be seen from the table above, one-third of all our patients suffer from syphilis of the nervous system. It cannot be too emphatically stated or too often repeated that *syphilis tends to involve the nervous system sooner or later*. Syphilis starts as a generalized infection and the nervous system is one of the vulnerable places in which it grows slowly but makes terrible wounds and leaves terrible scars.\*

One afternoon there straggled into the clinic a very dilapidated young man, obviously sick, very much run down, and apparently much discouraged and depressed. He told his own tale something as follows:

"I am a veteran of the World's War. They say I have syphilis. All I know is that I had good health until diphtheria broke out in camp. Lots of us were sick. Six times they got me out of the hospital and then had to send me back. Finally they discharged me. They tested my blood then for the first time but I had been discharged before they got the report."

"I started home sick. I became so weak I couldn't walk. My vision began to blur; I couldn't see. I kept wetting my clothes all the time. I couldn't remember what was said

\*Time and space are too limited to detail all the types of syphilis of the nervous system but the first three cases will represent three common forms.



to me. I couldn't seem to speak plain. My urine escaped involuntarily.

"I ran out of money and applied for work and got it but I couldn't hold it because I was so nervous. A charity hospital took me in and when they examined me they told me right away I had syphilis. They gave me a little treatment and sent me on and here I am, and I am worse than ever."

Examinations showed one knee-jerk to be absent and one exaggerated. One ankle jerk was entirely absent and one almost so. The pupils differed greatly in size, both were irregular and neither one reacted to light. An examination of his blood and spinal fluid both showed very marked evidences of syphilis. The type of gold sol curve was that of the incurable form of brain syphilis resulting ultimately in dementia.

"But do you have no memory whatever of having syphilis?" we asked him. "Did you never have a sore on your genitals or a breaking out on the skin?"

"Sure," he said, "just before I had what they called diphtheria. I told my army doctors about it. They examined me and said it was not syphilis. No, they did not test my blood and they did not examine the sore with the microscope. They burned it and then they circumcised me; then it got well. That made me think they were right. I didn't know then that nobody has diphtheria seven times."

This case requires no further comment. I do not know whether his story is true or not. From the medical standpoint it could be. In a year or so (untreated) he will be insane and in 100 years it will all be the same anyway.

All cases of syphilis at the Topeka Municipal Clinic are referred to our department before discharge, and usually before treatment is begun.

*Case 2. Inherited Brain Syphilis.* Hereditary or congenital syphilis of the nervous system is far more common than is generally supposed. We no longer depend on the Wassermann test or upon the Hutchison teeth that were once thought so typical to make our diagnoses. We must consider each case in

the light of what it presents as compared with what we know syphilis can do.

Anna had always been regarded as a precocious child. She learned to pronounce her words unusually early. Every one thought she was very smart. They said she was like her cousin, who was a professor of philosophy and who thought her very unusual.

When she was six, she started to school but she learned very slowly. This surprised every one, but she kept trying and made some progress until she was eleven years old, and then she seemed unable to learn anything at all. More conspicuous, however, than her difficulty in learning was her difficulty in behavior. She became more and more restless and gave her teachers increasing trouble because of her activity and noise. She simply had to move about and she had to talk. She was even complained of in church.

Finally she was sent to a convent school, but after she had been there two weeks the sisters wrote her mother to come at once and take her away. She had gone on a hunger strike. She was sent to another school but because she would talk out in school, laugh, get up and walk around, and disobey so flagrantly, no school would permit her to remain.

Now she was thirteen. A very careful history showed that she had been a very frail baby, an only child, born ten years after the marriage. Her pupils showed slight abnormalities. Mentally she was retarded. An examination of her spinal fluid leaned strongly in the direction of neurosyphilis. Her mother's blood test was weakly positive.

However acquired\*, this girl unquestionably suffered from brain syphilis. She has been under treatment one year. This fall she was received without difficulty or protest in the public schools. No better testimony as to her improvement need be cited. Pes-

\*The mother states that the girl's father was killed right after her birth. When the baby was two and a half years old, the mother married again but was deserted in less than a year. The mother believed that her second husband infected her with the disease. If this is the case, the child is not, of course, a case of inherited syphilis in the ordinary sense but one of neurosyphilis acquired very early.

simism in regard to the treatment of hereditary neurosyphilis is not justified.

*Case 3. Heredity Versus Environment.* She was 10. The father had deserted the family. The mother was in jail for grand larceny. The oldest sister was a thief. The next oldest was likewise a thief and is now in Beloit Industrial School. There are three in the family younger than she. An unusually capable social worker brought her in. Said she:

"She steals everything she can get her hands on and then she hides what she steals. And she lies persistently. She will even hide her own things and then claim she doesn't know where they are. She takes things that cannot possibly do her any good such as a pair of spectacles. She moves with astonishing swiftness. In almost no time at all she got together a suitcase full of games, books, thread, trinkets clothing, etc., from all over a three story house where she stayed and hid the whole thing. While she was in bed recovering from a tonsil operation she would sneak out of the bed when the nurse was out of the room, take little articles from other rooms and hide them under the mattresses of other beds. One morning she got up early, dressed her four year old sister and quietly slipped out of the house. She was found two hours later in another part of the city where she had rung a door bell and asked if they might come in and get warm. She told them her father and mother had driven them from the home.

On the tests of intelligence this girl was unable to do better than the average for a seven year old child. Her Wasserman test was negative. From this much data some people would jump to the conclusion that she was simply a feeble-minded girl. But there is more evidence to present. *Feeble-mindedness is never simply feeble-mindedness. It is a symptom—and the question should always be—Of what?*

In the first place this child was blind in the left eye with a scar on the cornea. Altho equal her pupils were irregular; they reacted fairly well to light but did not hold the con-

traction. The bridge of her nose was flattened and her forehead abnormally prominent. Her reflexes were hyperactive. Her palate was high, her teeth carious, her scapulae scaphoid. There seemed to be a murmur at the aortic valve of the heart. She had a speech defect and cried frequently during the examination. Her brother had the typical teeth of congenital syphilis. An examination of her spinal fluid showed a positive gold test altho other tests were negative.

All of this taken together is enough to make me quite positive of a diagnosis of *hereditary brain syphilis*. The question remains as to whether her hereditary disease or her environmental wretchedness was more responsible for her inability to resist temptation.

*Case 4. A Manure Pile Romance.* This is the story of a little girl of 15, a ward of the Juvenile Court of a county of northern Kansas. She is slight and fair and has large green eyes. Her manner is quiet but very bold. She steals everything she gets her hands on. She lies so rapidly and so skillfully and so unnecessarily that she baffles all detection. Examinations incending that of the spinal fluid showed no evidence of organic disease. Sociological factors of both the heredity and the environment make the tale worth hearing: Fern's mother was 14 years old, when one day as she was playing in her back yard, she found in a pile of manure a piece of paper upon which was scrawled a man's name and a few lines urging the finder to write to him. She did.

Two months later a 35-year old Indian laborer who was said to be a good whittler and a poor worker, was declared by the girl to be responsible for the state of pregnancy in which they found her. The parents permitted him to make a marriage of convenience.

Our patient was the result of this pregnancy.

Strange as it may seem they lived well together, until one day the father strolled in the room where his wife was playing the piano, pounded her with a club until she was unconscious, then shot her. Our little pa-



tient ran screaming from the house. Neighbors returned to find him dead, a suicide.

I solicit your recommendations as to what we should do with the girl. Punishment will of course be of no avail. Kansas has no hospital or institution which will take her for treatment or even custody. Theoretically she is curable.

*Case 5. A New Light on Marital Discord.* To those who are not familiar with the archaic schooling through which lawyers pass, it must seem upon reflection both stupid and vicious for our courts to continue to regard divorce as a purely civil problem. I insist that divorce is never purely civil and that it is usually chiefly psychological (or psychopathological).

Mrs. B was 40. She came over 400 miles to the clinic. This is her story:

Two and a half years ago her husband began to be queer. He had violent fits of anger and made many threats of killing her. He did actually strike and abuse her a great deal. All of this was contrary to his former custom.

She went to the court and applied for a divorce. They told her she would have to wait three months. She insisted that this was not compatible with life.

She went to a doctor. He told her she was foolish to imagine him insane; it was just meanness and she ought to leave him.

A divorce was granted. One week later the man was declared insane. Examination showed him to be suffering from brain syphilis, (the cause of the mental symptoms of the three preceding years). Now he is in the State hospital waiting to die. It has been found that she too is infected and must have treatment to prevent her developing the same disease. But in the meantime she has been rendered penniless by the divorce!

*Case 6. Another Aspect of "Why Girls Go Wrong."* Ethel is not a prostitute. A prostitute sells herself. Ethel is what is known as a "charity girl." She gives herself away. Her mental age is 11.

This is as good as 25 per cent of the men in the army. So it does not account for it-

self for her conduct disorder. This is to be accounted for by the fact that in addition to the intelligence defect this girl also has a volition defect. She cannot resist.

Her brother, one of ten others in the family, came to my office and shed copious tears because he said he had not known it and could not understand it. This seems to us the more pathological case.

*Case 7. And Ministers and Others.* Girls are not the only ones who go wrong. Men are not the only ones who seduce.

Etta is 19. Her mental age is 9. Consequently it did not make much difference to her with whom she had sex relations. Her brother suited her very well for awhile. Then the village minister presented himself. It was all the same to her. In fact there was this advantage to an affair with a minister: She could sue him if she conceived. She did—both.

*Case 8. One Family.* The father wouldn't come in. He considered himself an invalid. When the Provident Association found work for him he managed to cut his thumb so he wouldn't have to take the job.

The mother is one of 11 children. She didn't know the days of the week backward, she could not repeat three digits backward, she did not know the ages of her family. Her own mental age was 7. She was an imbecile.

Her oldest child is 9; his mental age is 6. The next boy has lived 6 years but his mental age is only  $2\frac{1}{2}$ . He cannot talk. Neither can Anna the next in line, who is 4. A baby of 2 and an unborn child complete the list.

This obviously feeble-minded family should be carted bag and baggage to Winfield and committed and surgically sterilized. They have always been dependents and always will be. It is far better to have them dependent under institutional provision than to be allowed to clutter up the machinery of civic government and social life. This is my recommendation.

Imagine my consternation when I was called a few days later to testify at a *trial* at which the whole family was brought as evidence that the father was not supporting

them! The newspapers broke out with front page sob stories about the tears of the husband and the pregnant mother clutching her babe to her breast, (the usual place), as she sat on the witness stand and testified that her husband did the best he could, (as if anyone had denied that).

This is the fatuous and futile fashion in which the county spent approximately \$250 in getting nowhere. A year later my recommendation was followed. This much for the prestige of the City Clinic.

—R—

### **An Admonition—By the Prodigal**

The medical profession is not keeping its ear as close to the grass roots as it should. It hears a mighty rumbling but it doesn't appear to know where. If so, it is heedless. This rumbling was accentuated at the state election last month in California.

The Osteopaths and the Chiropractors who had lost out in the state election two years ago won this year, hands down, by about 100,000 majority. They get an examining board each of their own, and it is to be self supporting. That is, there is to be no charge to the state in their functioning. Sixteen of the twenty-three judges of the Superior Court of Los Angeles county favored the cult law.

The prosecution of the cults by the medical board had been so costly and unsatisfactory in the county the people and the judges tired of the cost and conflict, as also, did the state. California is no exception in the wave of liberalism sweeping over the nation in medicine, law and theology.

The legal profession got a reminder to "Stand! Attention!" by the voters at the election, when the lawyers' proposed "bill" to limit the practice, by exclusion, to the faithful, was side tracked and ditched.

In Oregon, compulsory attendance in the common public school carried. Hence there is no partiality being shown medicine, law or church by the people.

Rational medicine is the medicine of the future. Mismanagement by over zealous friends and intolerance may for a time hinder

its progress. But like truth, which it is, it will survive. This being true, what is the cause of the unrest and dissatisfaction with regular medicine by the laity?

The motive of the education in the medical colleges is to qualify men to practice medicine intelligently. The literary qualification of these teachers is unquestioned. The same is true of a large per cent of the leading men in the profession. Their institutional (hospital) training is complete. They are rounded out in all the mechanical and technical requirements of the age in medicine. They know what should be done, what is best for the people and how to do it. Now comes the rub. But few people can stand riches. The same principle is true in education.

In conversing with some men who voted for the cults, but who employ the regular physician, they said, "There is too much persecution in the prosecution by the regulars. They are getting too intolerant." The whole trend of their talk was along the line of "you regulars are repeating the practice of the dark ages in religion. Persecuting for opinion's sake. 'Believe as I do or I'll put you out of business or kill you.'"

Prevention and suppression by law can't succeed. You can't make people good. If the cults are wrong they will die of their own accord. If you want them to continue, persecute them. If regular medicine is right you have nothing to fear. The people will take care of themselves.

The altruism in the regular medical profession is the same as that in law (this from a lawyer). Self first, which is right, but it must not be exaggerated.

Fifty years ago the law took no notice of the practice of medicine. If a regular (so called) consulted with an eclectic or homeopath he was anathematized and ostracized by the profession. This method brought the cults (so-called then) into prominence.

They are in good standing in the medical world today. They had a foundation stone to build upon. When the extraneous substance in this stone was ground off and prop-



erly shaped, it fit in the builder's wall symmetrically. The two good cuts in the meat in the cult's cocoon are massage and readjustment. How to absorb and utilize these two cuts into the body of the whole is the duty of the medical man. It is their propaganda and our effort to regulate them that centers public attention upon the two cults (cuts) to the exclusion of the whole.

The following methods of absorption, elimination and utilization are suggested and have been tried to a limited extent personally.

1st. Let the cults alone.

2nd. If they are honorable members of society meet them at the bedside of the sick, if we are not afraid that they know more than we do?

3rd. Treat them, then and there, according to their merit as shown by actual contact.

4th. Let us give our whole time, attention, talents and professional ability in building a worth while attractive house of our own.

(a) Spend no time in trying to prevent anyone from building the best house he can or a better one, and if he builds, do not tear it down.

Merit only will win in the finals, and patience and tolerance are its chief cornerstones—surmounted by merit.

I graduated in 1880 after taking a two years' course of six months each. Although I began the study of medicine in 1873, I did not graduate until 1880. I was instructed not to consult with an irregular. At any rate that was the ethics of the Kansas State Medical Society, which I joined. I paid no attention to the orthodox rule.

Soon after locating in Columbus, Kansas, I was called to see a patient whom an eclectic was treating. He was there. In the presence of the family I greeted him and asked him, "What is the matter? What have you done?" I took the temperature and timed the pulse. When I raised the covers to examine the abdomen the stench sickened me.

"Oh!" said the pseudo-doctor, "I've often heered it said in swelling or soreness of the bowels, a good remedy was to cut a chicken in two and put the cut surface with the intestines on the belly," which he had done. He took the chicken and guts away and after the soiled clothes had been removed and the patient washed, I finished the examination. It was a case of typhoid fever. The eighteen year old boy had been sick three weeks.

In those days eclecticism tabooed minerals in its practice. The eclectic hated calomel as bad as the devil hates "holy water." This boy was so badly salivated that his cheek had grown fast to his gum. I said to the pseudo in the presence of the family, "The boy has typhoid fever and this is the worst case of salivation I ever saw." The pseudo confessed to giving calomel. He quit practicing and went to farming.

One day in September, 1883, a Homeopath rushed into my office and called to me, "My patient is dying. Come with me." I went. His patient, a big, strong man, had a congestive chill and spasms. It was the first case of the kind I had ever seen. I gave him a hypodermic of a half grain of morphine with one hundredth of a grain of atropine. In twenty minutes one-fourth of a grain of morphine and 1-500 of atropine. The patient relaxed and slept. As soon as the fever abated he was fed quinine freely. He had a light chill the second day. In a week he was able to go to work.

In about ten days after this last event the Homeopath came to the office and asked me what I had done in treating this case. I told him. Said he, "Please give me the prescriptions. I have bought a hypodermic and am going to Texas." He went.

In reporting these cases no reflection is cast upon the present day Eclectic and Homeopath more than the early Allopath, who gave calomel by the teaspoonful. They all know better now and are equally, professionally qualified up to the standard.

**BELL MEMORIAL HOSPITAL CLINICS****Clinic of Ralph H. Major, M.D.**

Department of Medicine

A CASE OF PARKINSONIAN SYNDROME FOLLOWING  
ENCEPHALITIS LETHARGICA. MARKED SYMPTO-  
MATIC IMPROVEMENT AFTER HYOSCINE MEDI-  
CATION.

One of the most distressing sequelae of the recent epidemic of lethargic encephalitis, is the development of an outspoken Parkinsonian syndrome. A very high percentage of patients suffering from this disease show some type of hyperkinetic disturbance but the number of cases showing the typical shaking palsy is much smaller.

Marie and Levy<sup>4</sup> and Wilson<sup>9</sup> were among the first to report this complication and Weber<sup>8</sup> in 1920 described what he regarded as the first case on record of ambulatory encephalitis followed by the typical Parkinsonian syndrome. The Quarterly Cumulative Index lists under title only twelve reports of such cases up to September, 1922, but frequent reference to this complication shows it to be unusual perhaps but not rare. Grossman<sup>3</sup> studied ten cases, Sainton and Schulman<sup>6</sup> saw ten cases, de Lisi<sup>2</sup> reports studies on ten such patients and Robinson<sup>5</sup> has had twelve under observation.

The following case is of interest as a marked example of this trouble and also because of the marked symptomatic improvement under medication.

The patient is a colored man, age 30, who was admitted to the Medical Service of the Bell Memorial Hospital on May 3, 1922, complaining of "pain in the back and shaking of the hands and feet."

Family History: Unimportant.

Personal History: Patient has the history of a sore on the penis seven years ago, no history of secondaries. He has used much alcohol in the past.

Present illness: Fourteen months before admission the patient who is a teamster, noticed one day that he seemed to be "driving too many horses." Following this, he began to have "sleepy headaches" and finally went to

bed with them. For two months he was confined to his bed and has no memory of any events during this period. He recovered from this illness and was extremely thin, but gradually regained his weight.

Three months after his recovery from what he calls the "sleepy sickness" and nine months before his admission to the hospital, he noticed a "beginning shakiness" of the left arm and right leg. Seven months later the right arm and the left leg began to shake. This tremor is most marked when he sits still and ceases partially when he tries to make a voluntary movement. These motor phenomena are the only symptoms of which the patient complains.

Physical Examination: This patient was brought into the hospital by two friends upon whom he leaned when he walked. He is able to take only a few steps alone and this shows an extremely spastic gait with a tendency to run forward "after his center of gravity." The patient's legs and arms are in constant motion, a rhythmic tremor, two to three oscillations per second—a typical "shaking palsy." Any voluntary movement such as reaching forward, diminishes the intensity of the tremor.

The face has a typical mask-like expression, the nasolabial folds are obliterated. The patient can whistle, show all his teeth, blow out his cheeks and at will can resist strongly opening or closing the jaws, so there is no evidence of involvement of the lower branches of the facial or the motor branch of the trigeminal nerve. The eyes react somewhat sluggishly to light and accommodation. Convergence is poor. There is no diplopia. The movements of the eyes are good in all directions.

The tongue is clean, somewhat tremulous and is protruded in the mid-line. The patient's heart and lungs are clear on percussion and auscultation. The blood pressure is: systolic 100; diastolic 65. The biceps, triceps and periosteal-radial reflexes are active, the knee kicks are exaggerated and the plantar responses normal.

Laboratory examination showed R. B. C.



5,700,000, W. B. C. 7,000. Hemoglobin 95 per cent. The differential blood count showed nothing abnormal. The urine has a specific gravity of 1030, showed no albumen or sugar and was microscopically negative. A lumbar puncture was performed on May 6, 1922, the cerebro-spinal fluid was clear, cell count 2, Wassermann negative, Pandy negative, colloidal gold reaction showed no change in any of the tubes.

This patient then is a typical picture of post-encephalitic paralysis agitans or Parkinsonian syndrome. The mask-like face, the "shaking palsy" and the spastic gait are present. The pill-rolling movement of the fingers so characteristic of the shaking palsy of older men is however, absent. It is usually absent in the post-encephalitic paralysis agitans, but has been described in one case by Crouzon<sup>1</sup>.

Another interesting feature of this case is the history of an interval of three months between what he regards as recovery from the attack of encephalitis and the development of this tremor.

It would be of interest to know in what part of this patient's brain the encephalitis had led to destruction of tissue. Ramsay Hunt believes that in the ordinary variety of paralysis agitans we are dealing with a lesion of the globus pallidus, while Souques and Tretiakoff<sup>7</sup> described lesions of the locus niger in three cases. Both of these areas are commonly involved in epidemic encephalitis.

This patient who was shown in the clinic on May 6, 1922, and quite unable to walk alone, was started on hypodermic injections of hyoscine hydrobromide gr. 1-200 twice daily. The effect of this treatment was very striking.

The following week this patient was shown again. On this occasion he walked alone, and came into the room swinging his cane and then sat down in a chair. At this time he was able to walk at will about the wards and the hospital grounds. The shaking had disappeared completely and although there was still some spasticity present, and he walked with his body somewhat inclined forward,

the improvement had been very marked. He went home that afternoon and surprised his family by walking into the dining room and sitting down at the supper table.

At the present time he is coming to the outpatient department for treatment. He comes alone, is able to walk, but is not in as good condition as when he was in the hospital and getting hypodermic medication every day. There is, however, a steady improvement in his condition.

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#### R

In an effort to determine the causes of foetal death, Holland made an examination of 300 cases including the examination of the foetus in each case. He found that in 51 per cent death was due to complications of labor, 16 per cent to syphilis, 10 per cent to toxemia, of pregnancy, 2 per cent to chronic renal and other maternal diseases, 6 per cent to relative placental insufficiency, 5 per cent to foetal deformity, and in 10 per cent the cause of foetal death was undetermined. He estimates that 20 per cent of these might have been saved by proper ante natal care, 20 per cent by better technique in treating the complications of labor, and 12 per cent by better attention at both periods.

## THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D.      -      -      Editor

ASSOCIATE EDITORS—L. W. SHANNON, C. C. GODDARD, P. S. MITCHELL, O. P. DAVIS, G. A. BLASDEL, E. S. EDGERTON, E. G. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, W. F. FEE.

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### What You Have Bought

A story was once told of a man who stood on the steps of the Capital at Washington for an hour trying to sell ten dollar gold pieces at one dollar each but no one would buy.

The Kansas Medical Society offers its members more than thirty dollars worth of service for three dollars, but in this case, while all of them pay the three dollars only a small proportion accept the services offered them. It seems that many of them are satisfied that membership in the society is worth the money, and that many others do not know that they are entitled to anything more than that. Every member of the Society receives a copy of the Journal every month, and during the past year there have been published in the Journal an unusual number of very interesting and very instructive papers. The Bell Memorial Hospital Clinics are alone worth the amount of the annual dues.

The Journal, however, should be regarded by the members as something more than a purveyor of good medical literature, it should be a medium of communication between the component societies and between individual members. It should be the medium through which the members make known to each other their clinical experiences, their therapeutic

methods, and their theories, perhaps. It should be the medium through which the members discuss economic problems of the practice of medicine, through which suggestions may be offered for the betterment of the Society and the profession generally.

The Journal has always had a section for reports of county society meetings. Quite regular reports are received from some of these organizations, occasional reports from a few others and no reports at all from a good many, among which are included several of the largest societies in the state. It may not appear to be a matter of any importance whether these meetings are reported or not, but it is. It helps to keep up a society spirit and if each society reports its meetings enough competition may be awakened among the officers to have better meetings and get out a large attendance.

The reports received could be improved in at least one respect—one may like to know that Dr. Blank read a very interesting paper on pernicious anemia, but would much rather know what Dr. Blank said about it and what the men who discussed the paper said about it. If the Secretaries would make a few notes while the papers are being read and discussed it would be very little trouble to write out a short synopsis for the Journal. No reason has yet been given for the absence of reports from the larger societies. They would be interesting to the members and if the reports contain synopses of the papers and discussions would encourage the members to take more active parts in the meetings.

### CREDIT AND COLLECTION BUREAU

For three years the State Society has been conducting a credit and collection bureau for the benefit of its members, but only a small per cent of them seem to know about it. Some of them still send their accounts to other collection agencies that charge them from 25% to 50% on collections and do not collect any larger proportion of them than does the Bureau. This department is not conducted for profit and only charges 10% of the amounts collected. This just about pays the expenses of operation.



Every doctor has some accounts that cannot be collected. Some of these are against people who are willing but unable to pay. The Bureau, as its name implies, is more than a collection agency. Part of its purpose is to furnish members of the Society with the credit standing of those who require their services. It is quite easy to understand that if every member of the Society sent all his overdue accounts to the Bureau, it would soon have a list of all the people in the state that do not pay their doctors. At this writing the Bureau has a list of 3250 people who have failed to pay their doctors. This list is now being classified and arranged into county groups. As soon as possible lists will be made up for each county and will be supplied to the members of that county society. Every member who sends his overdue accounts to the Bureau will be getting a very satisfactory collection service at minimum cost and he will be doing other members of the Society a service in supplying the names of those who have failed to pay him.

This is not a black list, for many of these people, though unable to pay, are deserving and honest and would pay the doctor if they had anything to pay with; but there are many of them that are amply able to pay if they would. With this list the members will at least be able to anticipate the reward for such service as they may render.

#### THE DEFENSE BOARD

There are members of the Society who know nothing about the defense fund and the manner of its administration. Although the Journal regularly publishes an announcement and the names of the Defense Board, members write to every other officer of the Society to know how much it costs to take advantage of this service, or to whom they should apply for membership. Although very definite regulations were adopted by the Society for participation in the benefits of this fund, members ignore these regulations and make their application to the attorney for the Board, without having the endorse-

ment of their county society, and without even making the required formal application to the chairman of the Board.

It may be well to say here that every member of the Society in good standing is entitled to all the benefits of the defense fund but he should make application through the officers of his county society to the Defense Board. No comments upon the efficiency of this Board are necessary, its record shows for itself.

#### CARD INDEX DIRECTORY

There is maintained by the Society a card index directory, giving the name, date of birth, schools of graduation, date of license, location and former locations, positions of honor or public offices held, and other facts of importance of every registered physician in the state. The cost of the installation of this directory—getting the necessary data and transferring the same—was mostly covered by the publication of the Kansas Medical Directory which was sold at \$2.00 per copy. The card index directory is kept up to date at no further cost to the Society.

#### THE FINANCES

Out of an income accumulated from the annual dues of \$3.00 per member, the Society pays the expenses of its annual meeting; pays the salary of the Secretary and the expenses of his office; pays the expenses of the Councilors when on official business; publishes the Journal which maintains an office available to all the members for any service or information within its power to give; maintains a defense fund with the expenses of its attorney and its board of administration; maintains the Credit and Collection Bureau whose services are available to every member of the Society; and maintains a card index directory of the registered physicians of the State. In addition to this the Society has had made up and is now publishing in the Journal a catalogue of Stormont Medical Library which, with an endowment for its upkeep, was presented to the Society by Mrs. Stormont thirty years ago.

## CHIPS

When it seems necessary to coin a new word to express an idea, it is frequently true that the idea is too vague to be expressed in plain language. Further elucidation by the discovery of related facts renders the newly coined word superfluous. Our medical vocabulary is overstocked with words of this kind.

"The white man took upon himself the burden of civilizing or exterminating the few remaining close to nature races and making them acquainted with our disease producing virtues, wants, and vices. Unfortunately some of these races are preparing now to take the white man's scalp, while he is bleeding himself into general impotency." (Vecki)

It has been found that hypodermic injections of germanium dioxide in solution cause a marked increase in erythrocytes and a corresponding rise in hemoglobin per cent. Extensive experiments have been conducted at the Wistar Institute. It is hoped that in its action may be found a cure for pernicious anemia. It has not yet been made known whether the action of the drug is to cause a proliferation of red bone marrow or stimulates greater activity in the contained erythrocytes.

One would now be regarded as having a "pipe-dream" who predicted that sometime there will be a federal commission to function with the United States Public Health Service, whose duty will be to determine standards of treatment for all diseases and to tell the physicians of this country how to treat *all* their patients.

Kumagaya found by experiments that solid particles passed through the follicles of the intestinal walls. Tubercle bacilli were seen to be absorbed through the follicles and invade the lymphatic follicles but even then there occurred no tuberculous lesions in the locality.

It is apparently within the province of the legislative bodies of a state or nation to de-

termine how physicians shall *not* treat their patients—what drugs or remedies they shall *not* use or to what extent their use shall be limited. Does it also lie within the province of legislative bodies of a state or nation to determine how physicians *shall* treat their patients—what drugs or remedies they *shall* use and how and to what extent they shall be used?

While laughter is regarded as one of the commonest reactions of man, and man only, its relativity and its purpose are matters of speculation. Emotions are contagious and laughter is a defensive reaction against the depressing emotions of our fellows. McDougall suggests that it is an instinctive reaction of an aberrant type. This instinct is primarily excited by such actions, situations, and aspects of human beings as would excite in us some sympathetic pain or distress, if we did not laugh.

B. Glanville Corney (Lancet) reports the use of parathyroid gland in the treatment of paroxysmal tachycardia. In a case of seven years standing with attacks growing more frequent, one-tenth grain of the dried substance of parathyroid gland was given by mouth three times daily on an empty stomach. The paroxysms ceased after the third day. The patient has improved in general health and after five months appears to be well. Patient has been able to maintain his freedom from paroxysms with two tablets daily.

The question of patency of the fallopian tubes is assuming considerable importance in the study of the causes of sterility in women. Methods have been devised whereby the patency of the tubes may be tested by introducing air or gas into the uterine cavity. In the Vienna clinic it was found that in more than one-half of 60 cases thus tested the tubes were not patent. In five of these cases a subsequent laparotomy confirmed these findings.

It has been shown that the thyroid is the richest in iodine of all the tissues of the body, and that the thyroid in its normal state con-



tains a relatively higher quantity of iodine per gram of gland than a goitrous gland. Beebe thinks that the administration of iodine is important in the treatment of hyperthyroid forms of goiter. He thinks that the beneficial effects of an operation will be largely lost unless iodine is administered and that it is an essential part of the treatment in those cases that are treated with the x-ray.

In 1921 Manoukhin advanced a theory that infections are combatted in an organism by the breaking up of leucocytes and the liberation of specific anti substances produced by the leucocytes. This process he called leucocytolysis and is set up by a ferment called leucocytolysin which is produced by the spleen. Stimulation of the spleen by x-ray increases the production of leucocytolysin and increases the proportion of complement, hemolysins, agglutinins, bacteriolysins, and opsonins in the blood. Tuberculosis, typhoid, and many other infections have been treated by stimulating the spleen with x-ray. Beneficial results are claimed.

Following up the discovery of Besredka that mice could be immunized against para typhoid by feeding them *B. paratyphosus*, Nicolle and Conseil, of Tunis, have conducted some experiments upon humans in immunization against Malta fever and bacillary dysentery. Volunteers were given doses of dead organisms and after two weeks were injected subcutaneously with virulent cultures. Controls were also injected and while there developed typical attacks those to whom had been fed the dead organisms showed no symptoms from the injections of the virulent cultures. It would seem from these results that oral vaccination is effective in immunizing against organisms which invade the intestinal mucosa.

W. Blair Bell has made a preliminary report in the *Lancet*, Nov. 11, of his investigations on the effects of lead on malignant neoplasms. It was first observed that lead had a destructive action upon embryonic tissue cells. Certain facts were ascertained in

regard to the chemical combinations of lead in the tissues. It was found that lead enters into combination with lecithin, and that lead affects those normal tissues of the body in which lecithin or similar lipins are present in greatest quantity, and that malignant neoplasms contain lecithin in direct proportion to their rate of growth. Colloidal preparations of lead were used intravenously and it was found that greater proportions of lead could be recovered from malignant growths than from other parts of the body. Suitable doses of lead seem to arrest the growth of malignant tumors. The bulk of the growth should be removed by surgical procedures when possible. After the intravenous injections of lead, treatment by x-ray seems to be more beneficial. Of the fifty cases treated, four were cured, seven much improved, four improved and one arrested. There were twenty-one deaths, thirteen within seven weeks.

The National Board of Medical Examiners announces the following dates for its next examinations:

Part I: February 12, 13 and 14, 1923.

Part II: February 15th and 16th, 1923.

The fees for these examinations have been continued at the reduced rates for another year. Applications for these examinations must be forwarded not later than January 1, 1923. Application blanks and circulars of information may be obtained from the Secretary of the National Board, Dr. J. S. Rodman, Medical Arts Building, Philadelphia, Pa.

Hayes, Kan., Nov. 24.—(Special)—The infant son of Mr. and Mrs. Fred Beeby had one chance in 500 to live Tuesday, but a major operation at the age of thirty-two hours saved him. Physicians said tonight the baby had good chances of recovery.

A few hours after birth the baby began vomiting blood. Physicians said he could live no more than an hour. The operation followed. The infant baby was opened and the bleeding checked.

*The ailment is presumed to be a hemorrhage.*

*hage of the brain that caused bleeding into the intestines.—(Topeka Capital).*

So far the active principle of the pituitary gland has not been isolated. It is possible that the pituitary contains more than one physiologically potent constituent. Perhaps both pressor and depressor compounds are derivable from the gland structures. Abel and Rhuiller have prepared products from the infundibulum which have both vasomotor and oxytocic effects. These investigators believe that if the product is obtained in the pure state, it will be fifty times more active than histamin, and that there is but a single specific hormone in the infundibulum, and that this has both vasomotor and uterus-stimulating properties as well as a powerful effect on the kidneys. The hope of a speedy isolation of this pituitary hormone as a chemical entity is somewhat shattered by the fact that it is unstable in laboratory manipulations. (Jr. A. M. A., Nov. 18.)

The Department of Commerce, announces that the returns compiled by the Bureau of the Census show that over seventy-six thousand deaths were due to cancer in the death registration area of the United States in 1921, and assuming that the rest of the United States had as many deaths from this cause in proportion to the population, the total number of deaths from cancer in the entire United States for 1921 was 93,000, while for 1920 the number is estimated as 89,000 or 4,000 less than for 1921.

The trend of the cancer death rate is upward, the rate for 1921 being higher than that for any earlier year in 23 of the 34 states for which rates are shown in the following table. The cancer death rate in the registration area in 1921 was 86 per 100,000 population, against 83.4 for 1920. In comparing the death rate from cancer in one state with that in another, the Bureau uses "adjusted" rates in order to make allowance for differences in the age and the sex distribution of the population, because generally speaking, only persons in middle life and old age have cancer, so that a state with many old persons may

be expected to have more deaths from cancer than a state with comparatively few old persons.

The Supreme Court of Ohio has rendered a decision of considerable interest to hospitals. The Flower Deaconess Home and Hospital was sued by Taylor who claimed to have had a scalding hot injection administered to him while he was under the influence of an anesthetic after an appendectomy, causing him injury.

In its decision the court said: "However, this court is convinced that sound reasons sustain the great weight of authority to the effect that a public charity should not be held liable for the negligence of the servant in whose selection the hospital and its manager have exercised due care. On the other hand, such an institution is liable when it fails to exercise such care. In other words, this court holds that when a public charitable hospital has failed to exercise due and reasonable care in the selection of physicians, nurses, or attendants, and injury results from the incompetence or negligence of such persons the hospital is liable therefor."

## B SOCIETIES

### SHAWNEE COUNTY SOCIETY

At the regular monthly meeting of the Shawnee County Medical Society, the following resolutions were adopted:

Resolutions on the death of R. S. Plummer, M.D.:

Whereas, it has pleased Almighty God in His infinite wisdom to remove from our midst, one honored and worthy fellow practitioner and member of this society, and

Whereas, the pleasant and intimate relation which for the past forty years he held with the members of this society, and the countless number of patients and friends, make it eminently fitting that we should place upon record our feelings and appreciation of his many good qualities of heart, mind and body; his honest efforts to relieve the suffering; the self-sacrifice and unselfish disposition at all times makes us regret his loss.



Therefore resolved, that this association will ever hold in grateful remembrance the sterling professional qualities, the patient and integrity displayed by our late fellow member.

Resolved, that the removal by death of our esteemed associate from the position he has held as public benefactor creates a vacancy not readily filled in our community;

That the members of the association fully realize and deeply deplore the loss occasioned to themselves and to the public at large.

Resolved, that we hereby extend our deepest sympathy to the bereaved and family and friends of the deceased, hoping that even in the sadness of their affliction they may yet find some consolation in knowing that the worth of his private qualities and the value of his public service have won for him the highest esteem and commendation among us who were so intimately associated with him in the attainment of his ambition.

Resolved, that a copy of these resolutions be properly engraved and sent to the widow and family of the deceased member and a copy be spread upon the records of our association.

A. H. MARSHALL,

F. L. LOVELAND.

#### DECATUR-NORTON COUNTY SOCIETY

A called meeting of the Decatur-Norton County Medical Society, was held at the Country Club at Norton, Kansas, on Thursday, November 9th, 1922, with the following members present:

Drs. Tinney, Lathrop, Kennedy, Cole, Jeurink, Bennie, Smith, Beckner, Gulick, Kenney, Fuller and M. L. Perry, President of the Kansas Medical Society.

Dr. Perry delivered an excellent talk on encephalitis lethargica, which was generally discussed by all members present, Dr. F. H. Smith leading the discussion.

Dr. Lathrop gave a talk on the treatment of surgical shock, which was well received. Dr. Kennedy leading the discussion.

A committee composed of Drs. Kennedy, Tinney and Kenney was appointed to draw up resolutions of condolence to the families of

Dr. Arthur Reeves and Dr. W. S. Hunter, members of the society who died during the present year.

New members elected were Dr. D. H. Morgan of Oberlin and Dr. Herbert Bennie of Almena. Respectfully submitted,

C. S. KENNEY, Sec'y.

#### STAFFORD COUNTY SOCIETY

Society met in St. John at 2:30 p. m. Wednesday, Nov. 8th. In the absence of the president, Dr. J. T. Scott presided. Members present: F. W. Tretbar, J. J. Tretbar, Stafford; M. M. Hart, Macksville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John. Drs. Blaisdel and Blaisdel of Hutchinson, were visitors. Dr. G. A. Blaisdel, councilor for this district addressed the society and Dr. Harry Baisdel read a splendid paper on carcinoma of the lip. An interesting and instructive paper on toxic goitre was read by Dr. J. J. Tretbar. A general discussion followed the reading of the papers.

J. T. SCOTT, Sec.

#### MEADE-SEWARD COUNTY SOCIETY

The Meade-Seward County Medical Society met at the Liberal Hospital on the night of October 12, 1922, as guests of the druggists and dentists. After a nice visit by all present, we were invited to lunch which was one of the nicest banquets ever given in the southwest. Everything one could think of was on the table. After the banquet we had several papers. The first paper was by Dr. Winters on "57 Varieties of Right Sided Abdominal Pain," which was discussed by several of the doctors. A paper by Dr. Day, subject, "Nephritis," was also discussed by several of those present. Mr. Barrigin, father-in-law of Dr. Huddleston, was present and said when he was a boy the old women would give a dose of sut tea and do away with all abdominal pain. A paper by Harry Ravenscroft, a druggist, subject, "Relation between the Doctor and Druggist," was commendable. Another paper by Dr. Miller, dentist, subject, "Relation between the Doctor and Dentist," was very interesting and discussed.

We had quite a number of out-of-town visitors including Drs. Fee and Lesley of Meade, Dr. Blackmar of Hooker, Okla., Dr. McLoud of Tyrone, Okla., and several others and quite a number of druggists from Meade, Tyrone, Okla., Perryton and Elkhart, Texas.

We elected Dr. Huddleston as a representative to Hutchinson to attend the district meeting. Dr. Winters read a paper at Hutchinson, and we landed the next district meeting for Liberal, to be held in the spring. Liberal has a live bunch and will do its best to entertain all present. We have, we think, one of the best societies in the southwest.

J. W. MESSERSMITH, M.D., Secretary.

### DEATHS

Dr. Ray G. Doane, Lucas, Kansas, age 41, a graduate of Kansas Medical College, 1910, died at his home in Lucas, Nov. 22, 1922, from diabetes.

Dr. William Seward Hunter, Norton, Kansas, aged 43, a graduate of Hering Medical College, Chicago, 1904, died in Arapahoe, Neb., November 3, 1922. He served during the World War and was a member of Kansas Medical Society.

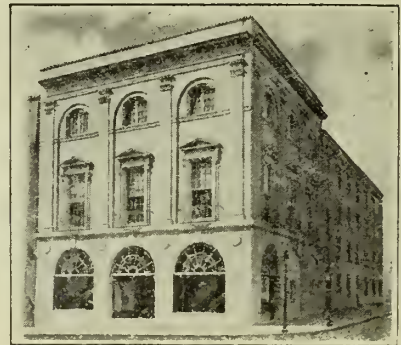
### Important Announcement

The medical profession everywhere will be interested in the announcement that the Abbott Laboratories of Chicago have purchased the Dermatological Research Laboratories of Philadelphia. This is an advance step for the Abbott Laboratories and will give them deserved recognition among the leading manufacturers of medicinal products.

It will be remembered the Dermatological Research Laboratories were the first in the United States to produce Arsphenamine during the war when there was such a scarcity of this article; and these Laboratories became well known to the medical profession for their patriotic attitude in developing and manufacturing medicinal preparations in this country. By this purchase of the "DRI" products, the Abbott Laboratories inherited their prestige.

The Abbott Laboratories acquired control of the Dermatological Research Laboratories on November 1st; and are continuing to operate them in Philadelphia under the direction of Dr. Geo. W. Raiziss, head of the department of Chemistry, and his corps of specially trained assistants. Orders for "DRI" products will be promptly filled from the Philadelphia Laboratories or from their branches or distributors. For further particulars regarding their purchase of the Dermatological Research Laboratories, the readers of this Journal are referred to the statement of the Abbott Laboratories on another page of this issue, entitled, "Important Announcement to the Medical Profession."

### The New Home of Hynsen, Westcott & Dunning of Baltimore



This national drug firm has just erected and occupied its own building at Charles and Chase streets, Baltimore. The building is artistic in appearance and adapted to accommodate the several departments of their rapidly developing business which began in a small way in 1889, but has grown to a million a year, with an organization of 125 people. Their unique sales department alone comprises 19 men who visit physicians in all parts of the United States but do not sell goods. Thirty-five of their products have been accepted by the Council and are advertised in this Journal. None of their preparations are offered direct to the public but are introduced to the medical profession for the use of physicians and their patients. Mr. H. P. Hynson, one of the founders, died in 1921; but their growing business has now been



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established in new quarters under the immediate supervision of Messrs. James W. Westcott and H. A. B. Dunning (the latter being the active administrator) with a highly trained force, equipped to meet promptly the demands of the medical profession anywhere and at all times.

—R—

### In the Interest of Active Immunity

Diphtheria can be prevented as surely as smallpox or typhoid fever. And by the same means—the use of a modified specific toxin. In the case of diphtheria the modification is effected by mixing the toxin with antitoxin. The toxin is first standardized to a degree of accuracy that rivals the inerrancy of a chemical reaction; and the antitoxin is standardized in units (both by official processes). This modified toxin (called toxin-antitoxin) does not produce any of the symptoms of diphtheria, but nevertheless it stimulates the body cells to produce antitoxin; and this antitoxin, unlike that introduced into the blood from without, remains a part of the patient's equipment and protection indefinitely—for several years at least, and perhaps for life.

All children between six months and six years should be immunized with toxin-antitoxin; others, if shown to be Schick-negative, need not be. Parke, Davis & Co., have an interesting reprint on this subject which they would doubtless send to any inquiring physician.

—R—

### Post-Graduate Schools for Veterans' Bureau Physicians

In order to render the best possible professional care and treatment to disabled ex-service men, Colonel C. R. Forbes, Director of the Veterans' Bureau announces that he is about to establish Post-Graduate Schools for physicians now connected with the Bureau and those who wish to join this Service.

There will be two schools for the teaching of the diagnosis, care and treatment of pulmonary tuberculosis, one at Fitzsimons General Hospital, Denver, Colo., and the other at U. S. Veterans' Hospital No. 41, New Haven, Conn. The courses at these hospitals

will be uniform and will run simultaneously. Each course will last two months, and will include collateral branches of medicine such as pathology, x-ray plate interpretation, physiotherapy, etc.

Before attending the schools physicians now in the service will be given a preliminary course which will be established under competent instructors in each of the Veterans' Hospitals for tuberculosis. They will then be selected to take the Post-Graduate course at Fitzsimons or New Haven. Specialists not connected with the Bureau will be invited to attend and give lectures to the students. It is anticipated that at least three courses of two months duration each can run during the year in the east and west.

As more physicians with special knowledge of tuberculosis than are already in the Service will soon be needed it is hoped that this demand will be supplied from the profession at large. Applications for admission to the schools with a view to service in Bureau hospitals may be sent to Colonel C. R. Forbes, Director, Veterans' Bureau, Washington, D. C. Attention Clinical Director of Tuberculosis.

—R—

### Acridiflavine

This drug continues to attract users, the verdict of whom is that it is a valuable new asset in genito-urinary practice. It appears to terminate an attack of gonorrhea in less time than other germicides employed by injection or irrigation. Presumably this is due to its exceptional penetrability.

An increasing number of physicians are prescribing it by mouth, as a urinary antiseptic. For this purpose, however, only a strictly pure and highgrade salt should be prescribed, such as that supplied by the Abbott Laboratories, Chicago. Their Acridiflavine more than meets the tests for purity required by the Council on Pharmacy and Chemistry of the American Medical Association.

This firm is supplying tablets of suitable grainage both for making solutions and for oral use.



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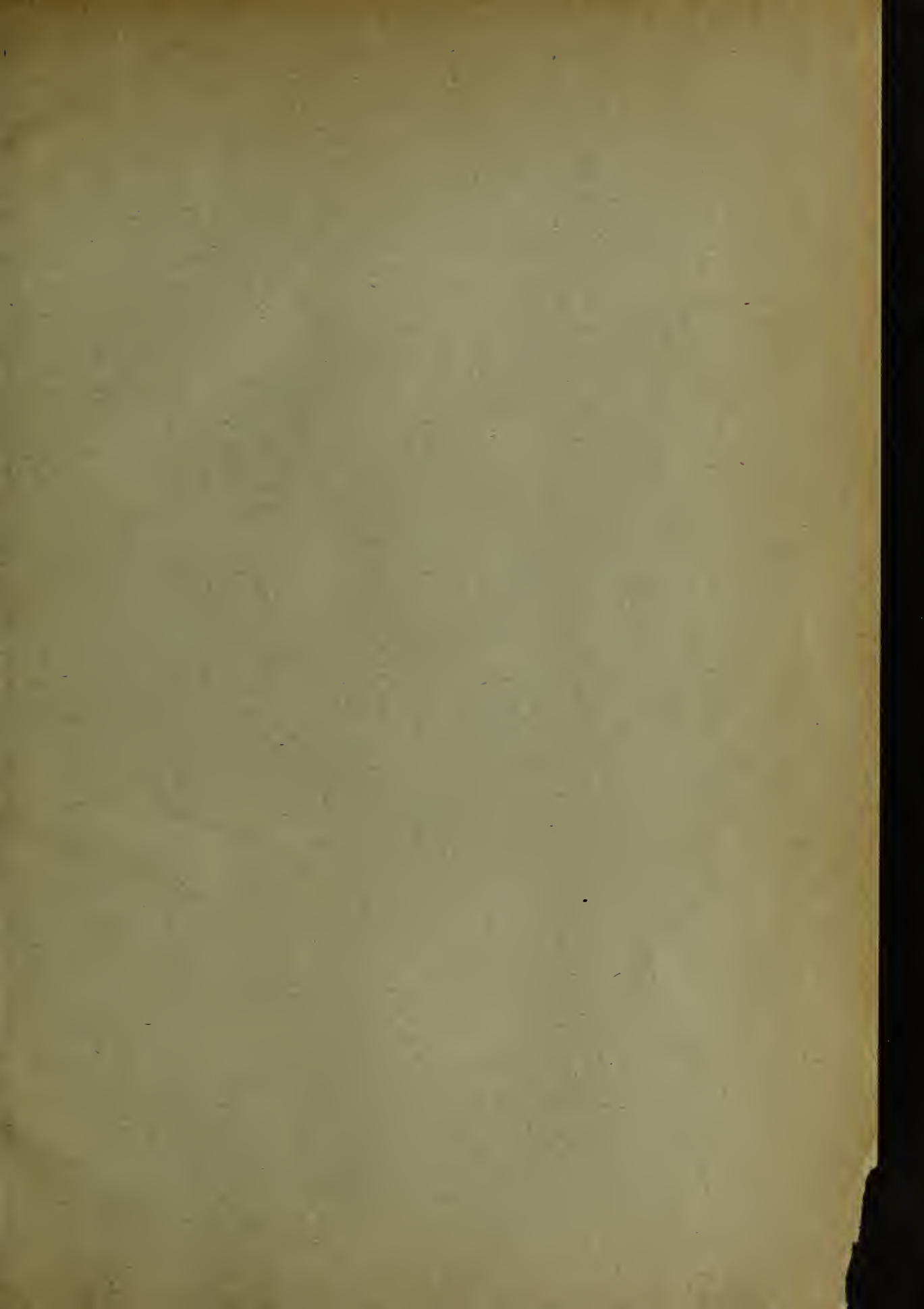
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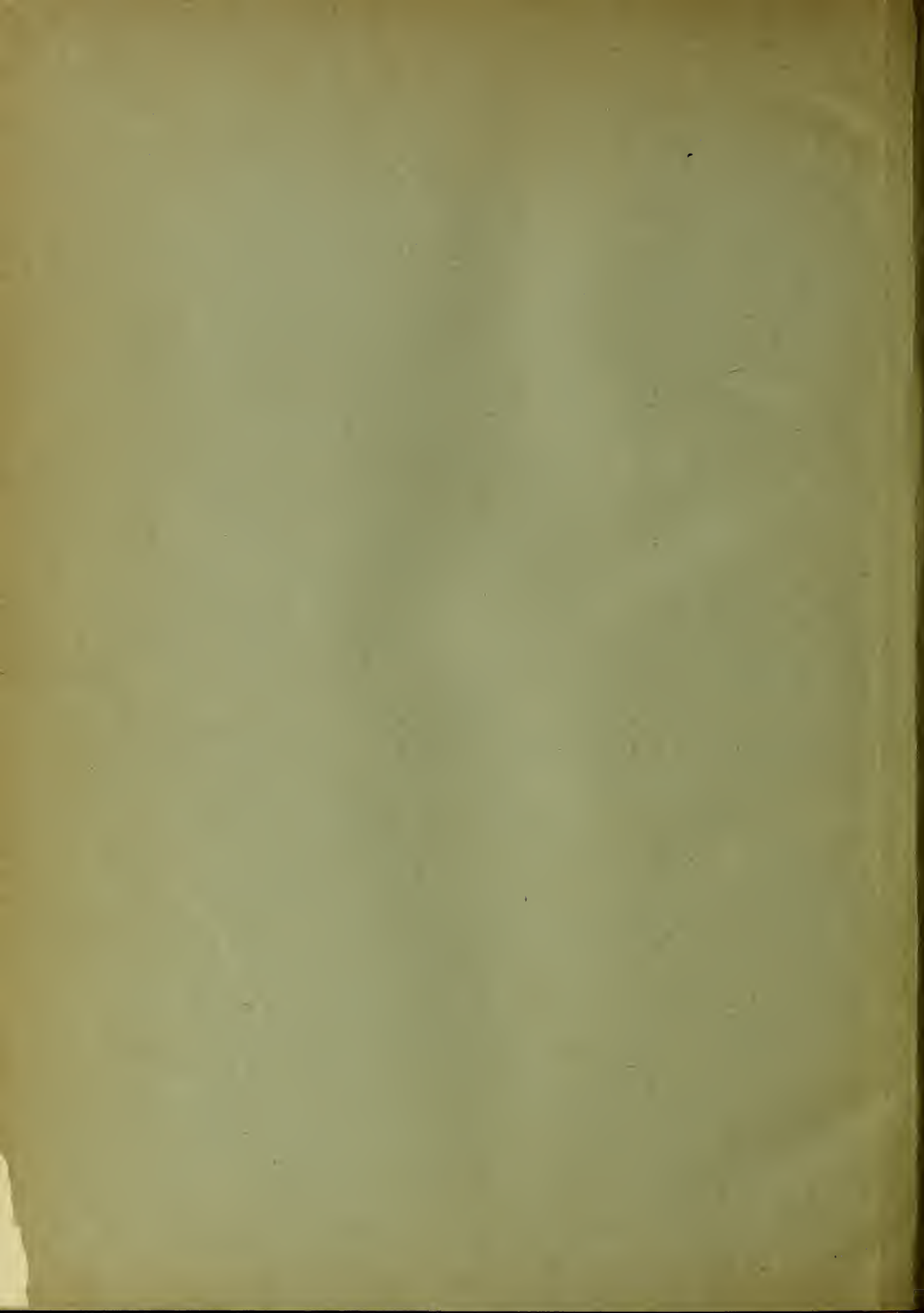
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